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ABSTRACT

The papers in this volume are selected from the material prepared for a conference held on social science research on population and development. The general purpose of the meeting is to improve common understanding of the state of social science research on development problems and to identify new opportunities for international agencies to contribute more effectively to such research. The first set of papers is a series of essays, not previously published, on topics of direct relevance to the subjects discussed at the conference and the second set is a series of informal memoranda by participants in the meetings. The papers include Population-Related Choices and Development Strategy; Social Research and Program for Reducing Birth Rates; Population and Development: An Agenda for Policy-Oriented Research; Economic Research Priorities for Population Policy; The Present and Prospective State of Policy Approaches to Fertility; Some Thoughts on Organizational Models for Population Policy Research; Strategy for International Agencies; Population, Social Change, and Development; Interrelation of Population Policy and Aspects of Development; Social Science Research Needed for Population Policy; Interrelationship of Population Policy and Aspects of Development; and Social Research Needed. (Author/JR)

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**Papers presented at a conference
at the Ford Foundation,
New York City**

SO 008 531

October 29-30, 1974

SOCIAL SCIENCE RESEARCH ON POPULATION AND DEVELOPMENT

Papers presented at a conference
at the Ford Foundation,
New York City,
October 29-30, 1974

Sponsored by the Ford Foundation, International Development Research Centre, Rockefeller Foundation, U.S. Agency for International Development, and the World Bank.

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PREFACE

The conference on social science research on population and development was the first in a series of specialized meetings following a conference on the general subject of social science research and development held at Bellagio in February, 1974. This series of conferences is organized by a steering committee drawn from five international agencies: the International Development Research Centre of Canada, the Rockefeller Foundation, the United States Agency for International Development, the World Bank, and the Ford Foundation. Further specialized conferences are planned on employment and income distribution, on rural development, and on education. The general purpose of these meetings is to improve our common understanding of the state of social science research on development problems and to identify new opportunities for international agencies to contribute more effectively to such research. To this end resource persons--scholars and government officials from developing countries--are invited to each meeting to join in discussions with representatives of international agencies.

The papers in this volume were selected from the material prepared for the conference. They are of two general kinds: the first is a series of essays, not previously published, on topics of direct relevance to subjects under discussion; the second is a series of informal memoranda by participants in the meeting: resource persons from the developing world and representatives of donor agencies. As can be seen from the conference agenda, additional background papers were made available to participants. These are not included in this volume because they have been recently published elsewhere.

As can be expected in so complicated an area of concern, conference participants expressed differences of opinion on the ordering of research priorities, on optimum organization for doing research, and on ways of getting the results of research disseminated and used by policy makers. Nonetheless there were broad areas of agreement on topics for research, both on the determinants and the consequences of population change, and on the need to strengthen capacity for such research in the developing world.

To provide systematic follow-up to the conference, technically qualified representatives of interested international agencies plan to meet from time to time to consider ways in which the agencies may collaborate to make their efforts in this important field more effective.

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Agenda

Conference on
Social Science Research on Population and Development

October 29-30, 1974
The Ford Foundation

Tuesday, October 29

9:00 a.m.-10:30 a.m. 1. Population and Development: Interrelations with Other Aspects of Development

Chair: Hollis Chenery

Opening Discussants: Gerardo Sicat
Carl Wahren

Agenda Questions

1. How significant are population growth, distribution, and composition for the process of economic development?

2. What is the significance of the debate at Bucharest and the revised World Population Plan of Action for social science research as related to population and development?

3. How does the development planner view questions of population policy?

Background Papers:

Population Policies and Economic Development, a World Bank Staff Report, 1974. See especially Chapters 2 and 3.

"Population Change and Economic and Social Development," United Nations World Population Conference, 1974. See especially "Conclusions and Implications," pp. 60-65.

World Population Plan of Action, United Nations, 1974. See especially par. 14, 15, 32.

Michael S. Teitelbaum, "Population and Development: Is a Consensus Possible?" Foreign Affairs, July 1974, 742-760.

*Edgar O. Edwards, "Population-Related Choices and Development Strategy."

*Participants' memoranda.

Tuesday, October 29

10:30 a.m.-12:30 p.m. 2. Social Science Research Needed for Population Policy

Chair: Joseph E. Black

Opening Discussants: Paul Demeny
Timothy King

Agenda Questions

1. What are the priority subjects for population policy research that are not now receiving adequate attention?
   "Macro-studies" vs. "micro-studies?"
   Studies of determinants of population change vs. consequences of population change?
2. Which of the social science disciplines are insufficiently involved?
   What is a realistic appraisal of the feasibility of interdisciplinary research on population problems?
3. Do we have necessary data and methodology to perform needed research?
4. How might the research opportunities of social experiments be maximized?
   What priority should be assigned to such investigations?

Background Papers:

*Ronald Freedman, "Social Research and Programs for Reducing Birth Rates," First Bellagio Population Conference, 1970.

*Paul Demeny, "Population and Development: An Agenda for Policy-Oriented Research."

*Timothy King, "Economic Research Priorities: Population and Development."

*Participants' memoranda.

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*Reprinted in this volume.

Tuesday, October 29

2:00 p.m.-5:00 p.m. 3. Strengthening Research Capacity, Data Gathering, and Links to Policy

Chair: David E. Bell

Opening Discussants: K. T. de Graft-Johnson
Francis X. Sutton

Agenda Questions

1. What is the current state of relevant research capacity in the developing world? How can incentives for research be strengthened? What kinds of institutional arrangements are most useful? What is the right "mix" of research and training? What is the right "mix" of institutional research capacity in the developing and industrial world?
2. What resources should be allocated to improvement of population data and its analysis in the developing world?
3. What means are there to insure that research results are transmitted to policy makers?
4. What examples do we have of good social science research relevant to population policy carried out by scholars in the developing world? Does this research affect policy formation? Development planning?

Background Papers:

*Ozzie Simmons and Lyle Saunders, "The Present and Prospective State of Policy Approaches to Fertility."

*Amos Hawley, "Some Thoughts on Organizational Models for Population Policy Research."

The Social Sciences and Development, Bellagio Conference on Financing of Social Science Research for Development, February, 1974. International Bank for Reconstruction and Development. See especially Summary of Discussion, pp. 213-238.

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*Participants' memoranda.

Wednesday, October 30

9:00 a.m.-10:30 a.m. 4. Strategy for Donor Action

Chair: Ruth Zagorin

Opening Discussant: Aziz Bindary

Agenda Questions

1. Are current levels of funding for social science research adequate? Should they be increased at the expense of other kinds of population work?
2. How can international agencies insure adequate attention to the several sectors of Chenery's "Development Research System?"
3. In helping to strengthen social science research capacity in the developing world, which of the following mechanisms should receive special attention? Training awards; research competitions; institutional development (university faculties, university-based research institutes, autonomous national or regional institutes); professional associations; regional and national networks of scholars and/or institutions. Other mechanisms?
4. Is there a need for new institutions in the developing world focussing specifically on social science research for population and development?

Background Papers:

*Oscar Harkavy, "Strategy for International Agencies: Questions for Discussion."

*Participants' memoranda.

Wednesday, October 30

11:00 a.m.-1:00 p.m. 5. Possibilities for Donor Collaboration

Chair: Robert Muscat

Opening Discussant: Carmen Miró

Agenda Questions

1. What are the benefits and drawbacks of donor collaboration?

2. Which of the program possibilities presented to the Conference merit further staff exploration?

3. Are there additional program possibilities that should be discussed?

4. Is there need for an overall "coordinating mechanism" for international agency support of social science research on population?

Background Papers:

Potential Programs for Donor Collaboration:

Carolina Population Center (University of North Carolina), "Technical Information Services."

Ronald Freedman (University of Michigan), "Research Additions to the World Fertility Survey (WFS)."

Forrest Linder (University of North Carolina), "Action to Improve Vital Statistics in Developing Countries--the International Institute for Vital Registration and Statistics (IIVRS)."

*Robert J. Muscat (U.S. Agency for International Development), "Stimulating Demand for Family Planning: A Proposal."

Moni Nag (Columbia University), "World Community Studies on Population and Related Matters."

*Participants' memoranda.

Wednesday, October 30

2:30 p.m.-4:30 p.m. 6. Summary and Next Steps

Chair: David E. Bell

Background Papers

Population-Related Choices and Development Strategy

by

Edgar O. Edwards
The Ford Foundation

October, 1974

Population-Related Choices and Development Strategy

by

Edgar O. Edwards
The Ford Foundation

It has become as commonplace in recent years as it was unusual a few decades ago to discuss the relationship between population and development in terms of the effects of demographic variables--usually size, composition, distribution and related rates of change--on development through effects on such variables as saving, investment, employment, productivity and income distribution.[1] There is also growing interest, though still on a far smaller and less illuminating scale, in those causal relationships which run in the other direction--from developmental variables to demographic variables.[2] To the extent that these relationships are well described, based on a sound knowledge of behavior patterns and resource constraints, and assembled in a simultaneous model, they can shed light on the development options open to a society. Indeed, if social objectives are built into the model, it can also indicate optimizing choices among alternative development policies.

But social objectives are not so easily defined, especially in quantitative terms, and those related to population are often among the most difficult to perceive. Population-related choices about social objectives are seldom explicitly stated and are often shied away from by policy makers because of the sensitivities involved. I would like to pose some of those choices which every society makes, however inadvertently, and indicate some of the dilemmas they create in the construction of development policies with respect to employment and distribution, education and health, and the rural-urban balance.

Some Necessary Choices

Development policies represent a designed manipulation of instrument variables--government expenditures, exchange rates, wage policies are examples--intended to modify social and economic activity in the direction of accepted objectives. It is, however, the population-related choices implicit in the phrase "accepted objectives," with which this section is concerned. Population has the unfortunate connotation of numbers. It is used here, however, in the wider sense of a group of people, composing let us say a nation, which can have other characteristics as well, such as preferences and quality.

Work and Welfare

Population in economic thought, unlike land and capital, plays a dual role. It is both a factor of production--a means of producing goods and services--and the group whose welfare is to be enhanced through production and distribution. The earnings of capital and land are linked to human welfare through ownership, but labor incomes involve direct tradeoffs among leisure, conditions of work and income, all of which affect human welfare. Treating labor as simply a means of production may lead policy makers to establish objectives which overlook its direct links to population welfare.

The gross national product is a rough measure of the goods and services produced, but the welfare of the population depends also on the distribution of these goods and services and on the amount of leisure it can enjoy. The dissatisfaction with GNP as an index of welfare can be traced largely to these three limitations--its failures (a) to measure production accurately, (b) to account for distribution effects, and (c) to include leisure as a component.

Leisure, representing both an ingredient of welfare and a reduction in work, raises a problem of social choice between more goods and services and more leisure. The economist "solves" it by specifying the terms and conditions of production and work and allowing workers and their families to balance their preferences as between goods and services (income) and leisure. This analysis rests on, *inter alia*, two precarious assumptions--that the terms and conditions of production and work cannot be changed or that welfare cannot be enhanced by changing them and that the opportunity to choose between work and leisure exists for those who want it.[3]

But the terms and conditions of production and work can be modified through a number of instrument variables available to policy makers, such as export subsidies, import duties, fertilizer subsidies, agricultural prices, investment allowances, minimum wages and the work week, which affect the composition of output, the technologies chosen in production, and the opportunities for and terms and conditions of work. Moreover, the option is open, though it is often neglected in both theory and practice, for policy makers to enhance welfare by reducing the disutility of work not only by improving working conditions as usually thought of, but also by establishing patterns of work which widen the choices open to workers, rather than placing on them the full burden of adjusting to standard patterns. The African with a shamba may be a better and happier worker if he has the time to plant and harvest; some workers may prefer twenty hours on one job, twenty on another and perhaps twenty on a third, whether with one or different employers, to a fifty-hour week on one; a woman with family obligations may be delighted to work ten hours a week, but not forty. Greater flexibility in modern sector enterprises might lead to patterns of work which are culturally more compatible than the international standard of the forty-hour week. It would require work scheduling, the vesting of worker benefits and possibly more management, but workers are not simply another factor of production even if policy makers choose to treat them as such. Obviously, the simple rule of cost minimization as an essential condition for maximizing welfare becomes more complicated, but for good reason.

The second assumption--that work opportunities exist for those who want them--simply does not hold in most developing countries today. In most, labor is in surplus supply; there are not enough complementary resources, of capital at any rate, in appropriate form to absorb available labor productively. But idle labor is population and, unlike idle land and capital, it normally imposes on a society an obligation for its minimum support. Whether such maintenance takes the form of transfers within the extended family or through government, it represents a social cost, a charge against the product of those fortunate enough to earn incomes. A machine will be maintained only if the cost of maintenance can be recovered in the value of its services, but an idle family, being essentially a fixed cost to society, should be offered employment provided only that total product is increased by such employment. Traditional societies normally had mechanisms for doing this; modern sectors are not so flexible and the need for constructive government policies arises.

Welfare for Whom: The Distribution Problem

No population is a homogeneous mass. Its members have different preferences, abilities, inheritances and opportunities. Defining equity in the midst of such diversity is a hazardous task and the end result will likely rest more on value judgments than on scientific merit.[4] The basic question is whether or not the welfare of a population is increased when the welfare of some is improved at the expense of others. The policy maker wrestles with this issue any time he raises interest rates, lowers the exchange rate, manipulates agricultural prices, introduces a new technology, or modifies subsidies because almost always some are helped by his decisions at the expense of others. Who does he favor? What guidelines does he follow in making his choices? Whose welfare is of concern to him?

The economist is of little help. The rule he lives with professionally is that a society is better (worse) off if at least one of its members' welfare is improved (decreased), everyone else's being unchanged. Tradeoffs, depending as they must on interpersonal comparisons, have uncertain outcomes. The rule leads naturally if incorrectly to an emphasis on the size of GNP--a larger pie has the potential of making everyone better off--and on the factor-of-production role of population. That emphasis is misleading because it singles out welfare derived from material goods and services to the exclusion of welfare effects from leisure, conditions of work, and the actual distribution of income.

The policy maker must struggle with this issue without much of a scientific basis. He may strive towards his conception of the general welfare. He may on the other hand choose a segment of the population and attempt to maximize its welfare whatever the residual effects. Whether that select group is composed of the very poor, the workers, the landlords and capitalists, the whites or the blacks, it would be both natural and consistent to treat the rest of the population as a factor of production--as a means of promoting the welfare of the in-group. It would, of course, be a very happy accident if the welfare of society could be maximized by simply tending for the welfare of one segment.

It is perhaps more common for policy makers to attempt to weight the welfare of the population in defining policies--perhaps by the degree of poverty (the progressive income tax), by the size of family (limitations on tax exemptions), by the inclination to work and save (policies based on the Puritan ethic), or by wealth and political influence (helping those who can afford to be informed and vocal). Weighting the welfare of different groups in society has its temporal counterpart. How does a society and its policy makers balance benefits for future generations against benefits for those now present and voting? The point is that these, too, are population-related choices which limit and influence development policies.

Quality and Longevity

Probably the most sensitive population-related issue with which policy makers must grapple is the choice between improving the quality of life and lengthening life itself. Fortunately, for the individual the two are normally complementary--efforts to improve one improve the other as well. Better nutrition, medical services and education will usually improve both quality and longevity.

For the family, too, many activities may pose no conflict. Producing more and a wider variety of food will enhance prospects for a longer and better life for all members. But given its income, a family may often face painful choices between providing health care for an aged member or better nutrition for its children, or between educating some children or prolonging the life of those that are diseased and disabled. "Who shall live and how?" is a recurring question requiring godlike answers.

Policy makers face such questions--and provide answers--anytime they choose to put limited funds into education rather than health, into education for some rather than jobs for others, into social security rather than nutrition, into preventive rather than curative medicine, into geriatric wards rather than child care centers, or when they decide on the appropriate balance among these activities. Who shall live--and how and why?

If population was only a factor of production in which investments (costs of birth, food, health care and education) could be made in order to obtain subsequent (productive-of-welfare) benefits, economic analysis could provide some criteria for "Who should live?", "Who merits investment?", "Who is obsolete?", "Is a marginal dollar better spent on the aged or the young?"[5] We wouldn't be happy with the answers but then would answers from any source be pleasing? How does one compare the prolonging of life (say geriatric care) with improving life quality (say child nutrition)? Policy makers make such decisions. By what guidelines?

Quality and Growth

The common assumption today is that the quality of life for a smaller population will normally be higher than for a larger population. While certainly true when labor is in surplus and a social cost to society whether employed or not, and most probably true for the world as a whole, there may be cases in which population is very scarce relative to other resources of land

and capital (Australia, for example) and in which the quality of life may be increased through population growth. Special as such situations may be, they do suggest that the world problem of population growth is also one of its distribution in relation to resources and therefore of constraints on international migration. Yet many interested agencies seem quite comfortable in criticizing national rates of population increase without addressing themselves to distributional aspects of population change.

Nevertheless, within nations having substantial surpluses of labor and prospects of growing unemployment, it is difficult to argue for more numbers either as agents of production or as means of increasing the quality of life. In such situations there is a clear tradeoff between quality and numbers, but that tradeoff may be more easily and clearly perceived at the national than at the family level. The family may still consider children and the probability of their future gainful employment as a major means of ensuring security long after the national need for more population has disappeared. Policy makers may therefore face the distasteful decision of how far to go in influencing or overriding family decisions about family size, particularly as the freedom to make family decisions may be a highly regarded component of population welfare. It would seem, however, that as population continues to grow, the social cost of that growth should rise while the family perception of its benefits should fall, the one increasing pressures for social programs limiting further growth and the other lessening the resistance to such programs. Perhaps population growth does carry within it the seeds of its own retardation short of Malthusian checks.

The conflict between private and social perceptions of benefits and costs, of which the above is one example, pervades the problem of social choice. We shall encounter it again.

Domestic and Foreign Value Judgments

In a world as interrelated as ours, it would be misleading not to note the influence of world opinion and experience on national population-related choices. That influence can clearly be seen in most less developed countries in the standard work week, in minimum wage and investment allowance legislation and in the technologies of modern sector production. It works directly and rather forcefully through constraints on international migration. It is interesting that these are tolerated for the most part while occasional suggestions for comparable constraints on the reverse flow of capital and aid are often termed inhumane. If an ethical basis exists for either policy, it must support both; if one is to be condemned, why not the other? So long as family planning programs in advanced countries are voluntary, resting on education and opportunity, it seems inconsistent to employ performance criteria and constraints in the international sphere.

In any event, policy makers in less developed countries must consider world opinion, however exercised, in forming their own objectives. It is an influence which may be resisted, but one that is unlikely to be ignored.

Some Policy Dilemmas

Development strategies should be expected to differ from one country to another because the settings to which they relate are characterized by differences in (a) objectives, (b) social relationships and behavior patterns, and (c) political and resource constraints. Moreover, the analysts charged with defining suitable strategies may have their own preferences and limitations.[6]

It is differences in objectives and the problems encountered in defining them that are of concern to us in this paper. For that purpose the analyst has two routes now open to him. In both he must build a model, explicitly or implicitly, which contains the setting components (b) and (c) above. He can then demand a set of objectives, introduce them in appropriate form in his model and crank out optimizing solutions as components (b) and (c) change. Alternatively, he can manipulate instrument or policy variables in the model and disclose optional results, leaving the policy maker to choose from among the options, probably without ever specifying explicitly what his objectives are. My own preference is for the second of these routes because objectives cannot usually be specified except in the process of confronting hard choices.

Finally, the policy fields briefly examined here exclude savings, investment, exchange rates, balance of payments, fiscal policy and monetary policy except as they may be drawn into the discussion of employment and distribution, education and health, and rural-urban balance.

Employment and Distribution[7]

Labor is in surplus in many less developed countries by either or both of two criteria--the amount of work effort available at a subsistence wage exceeds the demand for it or the marginal product of labor in at least some sectors is less than a subsistence wage. In such settings, analyses based on the assumption of full employment may be very misleading. For example, efforts to raise the productivity of those employed may not raise income per capita but instead add to the unemployed. The more important concept when labor is in surplus is not productivity per worker, but productivity per member of the labor force, and that may be increased while the former is falling (by employing more at a marginal product which is positive but less than the average).

Surplus labor suggests the inefficient use of other, complementary resources, and therefore an opportunity to increase both employment and output. Resources should be distributed among economic sectors and in technical forms so as to absorb available labor. The problems confronted in seeking this result are twofold.

First, there are technical constraints limiting the rate of adjustment. Most existing capital is already embodied in physical forms whose shape and location cannot be changed. Only new additions and replacements (investment) offer flexibility and even that flexibility is limited (1) by the need to supply and use the capital already in place, and (2) by the fact that in the production of some products, the technologies available limit employment options. Moreover, some land may be committed to uses, such as sisal, coffee and orchards, from which it cannot easily be diverted in the short run.

Second, some of the policies which might utilize the flexibility which is technically available for employment creation may encounter political opposition posing for policy makers difficult choices. The ownership of land and capital may militate against their uses in small-scale, labor intensive activities; efforts to reduce subsidies to capital or large-scale farming may encounter resistance from the wealthy and influential; and attempts to limit wage increases may antagonize unions and the civil service itself. The policy maker must not only consider whose welfare to increase but whether or not it is feasible to do so.

Increasing employment requires the wider and more intensive use of land and capital. It also depends on the rates at which these accumulate. If efforts to increase current employment will reduce these rates, a choice may have to be made between the welfare of those now seeking employment and the welfare of those who will want employment in the future. Unproductive make-work efforts will almost certainly involve this tradeoff. On the other hand, any set of policies intended to increase both employment and output must obviously be examined for its effects on investment and saving incentives, capital inflow and taxes. A set which would maximize current employment, current output and the rate of accumulation might seem ideal but investment itself is a tradeoff between current consumption and future output and its optimal level depends on the weights given to the welfares of present and future generations.

Increasing employment opportunities should improve the distribution of earned incomes. Alone, however, it will not provide either basic social services or incomes for those unable to work, or still unemployed. The provision of public goods and subsidies can meet some of these needs and private transfers through the extended family can meet others. Both mechanisms are basically means of redistributing earned incomes. Some public goods and subsidies, such as higher education and investment allowances, may go to those who have or expect to have relatively high incomes and may therefore worsen income distribution, but the intent is to provide basic health and education services to the population as a whole. The subsidy of such services is needed but excesses, such as in Kuwait, may have deleterious effects on incentives. Moreover, sharing in the benefits of production through income transfers is not a substitute for participation in production. Given the extent of employment opportunities, it may be preferable to seek means of sharing the work among those wanting it rather than sharing the income of those who work with those who are able but unemployed. Work sharing spreads the learning opportunities associated with work more widely and reduces the frustrations commonly associated with prolonged unemployment, effects which cannot be achieved through income sharing.

Increasing productive employment opportunities increases the use of population as a factor of production and in settings of labor surplus, promises to increase its welfare as well. It would follow that the quality of life improves as a result of such policies. The effect on population growth is less clear. Unless work itself increases the risk of death, higher incomes should reduce the death rate through improvements in nutrition and health care. They also reduce the need for children as a hedge against insecurity, yet put more families in a position to afford children if they are wanted as a source of enjoyment. If women are drawn into employment, the effects are even more mixed. Employment reduces the time available for having and raising children and reduces the need for children for security, yet increases the value of children for work at home or on the farm and gives families the income to afford them. We don't know a great deal about these conflicting effects, although crude evidence suggests that higher incomes and smaller family sizes are related.

Education and Health

Education and health services are probably most difficult to analyze objectively. First, they have immediate and direct effects on the quality of life. Second, though not unrelated, they can be seen to increase both the supply and potential productivity of labor. Third, they pose within them difficult choices as between higher and lower education and as between longevity and quality of life.

The costs of providing these services--the alternative uses of the resources allocated to them--are less directly perceived in terms of human welfare. A feeder road, a factory, a market place, and the subsidy of fertilizer seem impersonal when compared with the education and health care of children. Yet the provision of income-earning opportunities also improves human welfare. Seeking an appropriate balance between education and health services on the one hand and income-earning opportunities on the other is further complicated because in providing the former jobs are also created and in providing the latter learning opportunities and better nutrition also result. Human welfare depends on income as well as the availability of education and health services and the productivity of a population depends on its education and health as well as on the availability of complementary resources with which to work. Producing growing numbers of educated unemployed suggests an obvious imbalance in the allocation of a nation's resources; creating jobs which can only be filled by expatriates suggests another kind of imbalance.

The experience of developing nations achieving independence since World War II demonstrates quick reactions to educational and health shortages. More recent experience suggests reluctance or inability to deal effectively with educational surpluses. This can be traced in part to the pricing of educational services, particularly of higher education. Often being free or heavily subsidized, the private demand for higher education is naturally exaggerated by comparison with social need; the private perception of the ratio of benefits to costs exceeds the social ratio because the benefits accrue privately while the full costs do not. Moreover, those who receive higher education (and their parents) form a strong and vocal political lobby whose welfare may be given priority in the decisions of policy makers. Several analysts have concluded that the general welfare would be better served if those who benefit from higher education were required to pay for it later out of their higher incomes or through forms of public service.[8] Such a policy would make the private demand for education somewhat more realistic than it now is, and would either release public funds for the creation of more jobs (and educational places) or would reduce the taxes now collected to finance higher education. But this policy, too, confronts the educational lobby. Whose welfare is paramount?

High subsidies to higher public education lead either to excessive provision at the expense of job creation or to the rationing of limited places. The latter policy might be made more palatable by encouraging the private sector to provide alternative educational opportunities at full cost, as in the Philippines.

Economic studies suggest that the net social return from basic education is greater than that from higher education and the same may be true of basic health services.[9] That such services should eventually be provided universally is generally accepted; how quickly and at what price are more difficult questions for policy makers. Increasing the share of resources going to family planning, for example, may reduce the current availability of other basic services but enable future generations to benefit from them more widely. The pricing of basic services is also a matter of choice. Providing limited services free entails some form of rationing; charging something for them means that more services can be provided. Moreover, pricing may have incentive effects. In Kenya, where until recently half of the cost of primary education was covered through school fees, parents have cited such costs as a major incentive for smaller families.

As nations increase their capacities to supply basic services, the conditions of choice change. Charging for services when they are scarce may increase the services available; charging for them when they are widely available may limit their use. Then the incentive effects of prices must be weighed against the apparent inverse correlation between level of education and family size.

The Rural-Urban Balance

The appropriate balance between rural and urban development revolves around rural/urban migration--the location choices of people--and location choices with respect to infrastructure, including education and health services, and income-earning opportunities. The typical pattern has been for urban centers to grow at two to three times the rate of growth in total population and, as natural growth has usually been lower in urban than in rural areas, urban growth has depended mainly on net immigration.

The Todaro migration model has been widely accepted as providing a useful explanatory framework.[10] The essence of that framework is that a substantial differential exists between urban and rural earnings which will attract rural inhabitants to the city. Because the differential is largely institutionally determined, however, it will not diminish appreciably, if at all, as migrants are added to the natural increase in urban labor supply. Any excess of growth in the urban labor supply over growth in urban employment opportunities becomes either openly unemployed or temporarily absorbed in informal urban activities. As the ratio of modern sector employment to the urban labor force falls, the probability of additional migrants finding modern sector jobs in the city will decline, and as employment probabilities fall, migration should diminish. Eventually migration should settle at the level which just fills the gap between increases in modern sector employment opportunities and the natural increase in urban labor supply, but that equilibrium may not be achieved before urban unemployment reaches politically explosive levels.

Migration in this model is the combined result of the pull from the cities and the push from (lack of opportunities in) rural areas. If education everywhere is geared to urban modern sector job requirements, the rural push will be intensified; if unemployment in the cities stimulates the allocation of a larger share of national investment to urban development at the expense of rural development, the probability of urban employment will rise, migration will increase, and the equilibrium level of urban unemployment will be even higher than before. This circle may be traced again and again.

The policy prescriptions emerging from the model are essentially threefold: (1) to weaken some of the institutional constraints preventing the urban-rural earnings differential from narrowing, (2) to improve the relative attractiveness of rural communities by allocating more funds to rural infrastructure and rural income-earning opportunities, and (3) to make education more relevant to emerging rural opportunities and demonstrably rewarding financially when applied in rural areas.[11]

But these policies, too, are not entirely clear-cut or easy to adopt and implement. Whatever the reasons--overcrowding, nightlife, higher average incomes, the availability of family planning services, or the separation of families--as already noted the natural growth rate of population is lower in urban than in rural areas. Encouraging migration may reduce population growth--but it may do so by lowering the quality of life. Moreover, some would argue that demand and investment opportunities are most evident in the cities, and it is both easy and wise to respond to these opportunities, which in turn should raise demand for rurally produced goods.[12] In any event, misery and unemployment are visible and threatening phenomena in urban areas and both genuine sympathy and political security may motivate policy makers to respond directly. Finally, the allocation of more resources to rural development implies priorities for smaller scale, labor intensive activities and the influence of those having a stake in large-scale, urban development cannot be discounted.

Family Behavior and Family Size

In discussing the kinds of population-related choices which confront policy makers it has been assumed that policy options and their consequences--the tradeoffs involved--could be specified as a basis for decisions. To do so with precision implies a comprehensive understanding of the behavior of decision-making units in societies--individuals, families, and social and economic organizations--the ways in which they interrelate, and their responses to changes in circumstances, particularly as these are affected by policy variables.

Fortunately, social scientists do know a great deal about behavior, or at least its empirical outcomes--for example, how expenditure patterns change with level of income, how choices about means of production depend upon relative factor prices, how changes in exchange rates will affect different groups in society--and are entitled to some confidence in the options they expose. But that knowledge is limited and is often assumed to be transferable from one setting to another without major modification. Both the limitations of knowledge and the risks associated with the inter-setting transfer of what is known are perhaps greatest for family behavior with respect to family size. (Consider, for example, the simple question, "Why do parents in higher income groups have fewer children?") Although this matter is the subject of another paper, I would like to conclude with a few comments on it.

The contributions of economists to this subject since Malthus pitted sexual appetite against food production have been essentially barren exercises in theoretical manipulation.[13] Most recent excursions have sought to support or dispute the approach originated by Gary Becker of Chicago.[14] He sought to apply the principles of consumer choice to decisions on family size. As incomes rise, a family can afford more of everything including children. If, however, at the same time the cost of bearing and raising children rises relative to other goods, the family would on that account have fewer children. If this substitution effect is stronger than the income effect, a higher income family could be expected to have fewer children. A higher income family may automatically confront higher costs of children for a number of reasons. For example, the wife may be working and having another child would entail opportunity costs not encountered by the non-working wife; one working wife may be better educated than another and be earning more income; or higher income families may want better educated (higher cost) children.

A fundamental weakness of this approach, and indeed of others, is its assumption that basic tastes and preferences do not change with income. Some authors have tried to relate preferences to status, norms or targets which themselves change with income.[15] Unfortunately, none of these approaches takes on directly and effectively the question of why and how preferences change over time or with respect to circumstance. One family may change its behavior because it has moved into a new status group and assumes its norms and standards, but how the group attained its characteristics is not explained. It is a major lacuna in the social sciences that we lack a theory of preferences and must therefore base our theories of choice on the assumption of given tastes. The cost in terms of our understanding of what determines family size and how it can be reduced seems very great indeed.

If we knew more about preferences, perhaps policy variables could be manipulated in ways which would have direct effects on them. In the absence of that information we rely on more indirect approaches. We seek new technologies; we provide opportunities; we may raise the cost of children by limiting tax allowances and raising school fees; we may encourage wives to work and to become educated; we seek higher and more equitably distributed incomes. But these measures take long to develop, are slow to work and some are uncertain of effect. Social coercion may yet have its day.

There is, however, one apparent dilemma in the policies now commonly discussed. There is one school of thought that emphasizes the inverse relationships found between levels of education (and possibly of nutrition and health) and family size. The prescriptions which follow are (a) to increase the supply of social services as rapidly as possible, and (b) to provide them free in order to stimulate maximum use of the available supply.

Another school of thought emphasizes incentives and disincentives. The prescriptions include payments for vasectomies, raising the direct family costs of raising children (school and health fees, limits to tax allowances for children), and the provision of more jobs, particularly for women, to raise the opportunity cost of having children.

There may indeed be conflicts between the two approaches, but they may often be complementary in effect. The first approach depends for its effect on fertility primarily on the impact additional social services today should have on the next generation. The second focuses on a different age group, today's parents, and seeks to influence current decisions on family size. Moreover, charging for social services should help to finance a larger supply. The two approaches come into conflict when the supply of social services is so large that full utilization requires a zero price. The two approaches require coordination as the supply of social services expands, but they are not basically contradictory in nature.

Notes

[1] See, for example, Paul Demeny, "Demographic Aspects of Saving, Investment, Employment and Productivity," United Nations Population Conference, Belgrade, 1965; Allen C. Kelley, "The Role of Population in Models of Population Growth," American Economic Review (May, 1974); and Warren Robinson, "Planning, Population and the Macro Framework," in Population and Development Planning (forthcoming). The earlier classic, Ansley J. Coale and Edgar M. Hoover, Population Growth and Economic Development in Low-Income Countries (Princeton University Press, 1958) is probably the clearest milestone of this freshening interest.

[2] The revised TEMPO model makes such an effort. See Stephen Enke, Description of the Economic-Demographic Model (Santa Barbara, 1971). See also my effort to direct attention

to this problem, "Making Family Planning an Integral Part of the Development Programme," Foundation Meeting on Population, Lake Como, April 8-11, 1968. Note should also be made of the migration studies stimulated by Michael P. Todaro, "A Model of Labor Migration and Urban Unemployment in Less Developed Countries," American Economic Review (March, 1969). An approach on a very different line is traced in Harvey Leibenstein, "An Interpretation of the Economic Theory of Fertility: Promising Path or Blind Alley?", Journal of Economic Literature (June, 1974).

[3] Perhaps the shortest and least mathematical summary of the economics of welfare is Francis M. Bator, "The Simple Analytics of Welfare Maximization," American Economic Review (March, 1957).

[4] Paul Samuelson has demonstrated the need for ethical judgments in making welfare decisions. See his "Evaluation of Real National Income," Oxford Economic Papers (January, 1950).

[5] An interesting effort to come to grips with one quality issue is M. Selowsky and L. Taylor, "The Economics of Malnourished Children: An Example of Disinvestment in Human Capital," Economic Development and Cultural Change (October, 1973).

[6] As an example of the differences settings can make in development analysis, consider the following contrasting conclusions:

(1) The common argument that reducing population growth in LDCs will raise per capita income and, by reducing the social cost of supporting the idle and dependents, raise GDP.

(2) The recent Erlich argument that reducing population growth in advanced countries will reduce GDP and free some of the world's resources for use in LDCs

Both may be true if labor is in surplus in LDCs but scarce in the advanced countries.

[7] See E. Edwards, ed., Employment in Developing Nations (New York: Columbia University Press, 1974).

[8] See, for example, Mark Blaug, Education and the Employment Problem in Developing Countries (Geneva: International Labour Organization, 1973); E. Edwards and M. Todaro, "Educational Demand and Supply in the Context of Growing Unemployment in Less Developed Countries," World Development (March/April, 1973); and J. Bhagwati, "Education, Class Structure and Income Equality," World Development (May, 1972).

[9] See the various writings of Blaug, Carnoy and Psacharopoulos.

[10] Todaro, op. cit. Also J. Harris and Todaro, "Migration, Unemployment, and Development: A Two-Sector Analysis," American Economic Review (March, 1970); and Edwards and Todaro, op. cit.

[11] While such policies have yet to be tested in a comprehensive way, the Calcutta experience over the last two decades may serve to dispel the notion that rapid urban population growth is inevitable and must therefore be accommodated. "From 1951 to 1961, the decennial rate was 25.0 per cent for the Calcutta urban agglomeration and 32.7 per cent for West Bengal as a whole, whereas from 1961 to 1971 the rates were 22.1 per cent and 27.2 per cent respectively." The low rate of urban investment seems to have been an important factor. See Harold Lubell, Calcutta: Its Urban Development and Employment Prospects (Geneva: International Labour Office, 1974).

[12] See, for example, Guidelines for a New Strategy (Bogota, Colombia: National Planning Department, 1972).

[13] See the review by Harvey Leibenstein, "An Interpretation of the Economic Theory of Fertility: Promising Path or Blind Alley?", Journal of Economic Literature (June, 1974).

[14] G. Becker, "An Economic Analysis of Fertility," in NBER, Demographic and Economic Changes in Developed Countries (Princeton University Press, 1960).

[15] Duesenberry, Easterlin and Freedman have been most active in this area.

Social Research and Programs for Reducing Birth Rates

by

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A working paper prepared for the First Bellagio
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A Prefatory Note

Since almost every social institution is relevant to population change and fertility somewhere, a summary review necessarily is highly selective and presented in rather sweeping categorical statements, which vary in the solid evidence behind them. I assume that we are concerned mainly with policies to reduce population growth by reducing birth rates. The paper is presented in stark outline form, with occasional illustrations and personal views interspersed to clarify a catalog.

My personal experience and research is mainly in Asia, although I have some acquaintance with the literature of other places. The examples mainly are from Asia, particularly Taiwan which has the most developed set of data and studies available. So far as I know, most of the general ideas would apply to developing countries or other continents. But, cultural variations do make important differences. The evidence on transferability is still very sparse in this field.

I. A first summary view:

Organized programs to reduce birth rates are attempts at massive interventions into complex socio-biological reproductive systems which are not very well understood. Fortunately, with common sense and relatively little research, it is possible to start family planning programs in most countries and achieve some success. This is possible, because almost everywhere there is a significant group of couples ready to try birth control if it is offered in a medically safe and culturally inoffensive way. However, after the initial success, social research or at least simple measurements of what the program is doing becomes important. In the so-called "successes" (e.g., Taiwan and Korea) there has been a regular interaction between research and program almost from the beginning. I believe that the research has contributed to the success. Where research and even routine measurements, have been grossly lacking (e.g., in India) it is probable that the periodic abrupt declines in program success result partly from the absence of information for policy decisions.

In short, action need not wait for research, and the complete social-demographic research model will never be achieved. However, research and information can help the programs in ways I will try to specify. The interaction between action and research is necessary for success in either.

As a minimum we should know the character of planned program intervention, who is affected, and in what ways. But, we must know as much as possible also about the much broader setting for the program--the complex system which determines reproduction. Otherwise, we are unlikely to know whether the intervention makes a difference or how to revise policies which fail to meet changing objectives.

Scientific precision is neither possible nor necessary. But, there is an incredible failure to utilize the existing research tools and knowledge for elementary measurements. There is no plan for the greatly expanded research and measurement programs that ought to be a minimum guide and safeguard for massive population interventions. No country, with or without a population policy, knows enough about what determines its birth rate to make population programs more than plausible, if necessary, experiments. Some countries with large programs do not know either the national birth rate or the initial characteristics and post-program histories of their clients. Since the programs already involve millions of couples taking contraceptives or being sterilized, the responsibilities are considerable.

The research and evaluation effort in most population limitation programs is grossly deficient in at least three important ways:

1. For most countries we do not have regular measurement of either fertility or birth control practice to

indicate broad trends, either with or without a population program. These measurements do not require highly complicated "basic" research. We know enough to begin and can improve by practice.

2. We are doing relatively little to learn what social and economic factors affect actual fertility, norms about family size, and the practice of birth control. This knowledge of basic relationships is important now to guide allocation of effort and to judge the validity of arguments that family planning programs fail because the necessary social conditions are not present. They may be even more important later in the likely event that it is necessary to go "beyond family planning" to move to later objectives.

3. In many programs research and evaluation is either not done or is grossly deficient on crucial issues. Some countries do not know the important characteristics of the program clients. Some record these characteristics initially but fail to follow-up acceptors to see what happens to their birth control practice, fertility, and well-being, especially after they leave the program. Very few programs do what is most meaningful: follow-up adequate samples of acceptors and comparable non-acceptors through the crucial stages of family life.

II. What we need to know

Figure A is a gross classification of the variables which affect and are affected by fertility. We begin with fertility, our primary interest, and work back through the system of variables affecting it:

A. Fertility (for programs of population limitation, this is the main target). To measure fertility we must know:

   1. The crude birth rate (births per 1000) measured over time for the major strata and areas of the country.

   2. The components which determine the birth rate. Analytic decomposition into these elements is crucial, because the birth rate may rise or fall

while the underlying fertility movement is in an opposite direction. Components include at least:

a. The age-sex composition of the population.
b. The proportions married at each age.
c. The birth rates for married women at each reproductive age.
d. The intervals from marriage to successive births.

B. The intermediate variables are a limited set of factors which immediately determine fertility levels (see Diagram). Anything else--social values, institutions, or environment--can only affect fertility through these. Any theory linking anything else to fertility should specify through which combination of these variables it operates:

1. Exposure variables: the proportions married (or in sexual unions) at each age; periods "lost" to reproduction by death or divorce or separation.

2. Intercourse variables: the frequency and timing of coitus.

3. Conception variables: the "fecundability" of the couples, the use of contraception (including sterilization and abstinence) as these affect the probability of conception.

4. Gestation variables: the incidence of spontaneous or induced abortion as affecting the probability that a pregnancy ends in a live birth.

What is the level and effects of these variables at each age and for major strata and areas of the population?

C. Social norms about family size and about the intermediate variables:

1. How many children do married couples want; how many do they think others expect them to have; how many do they expect other couples to have? How strong are fertility norms as compared with competing norms (i.e., why don't they act to achieve desired fertility when the means are available)?

2. What are the social norms about the intermediate variables and how much do they control behavior (e.g., what are the beliefs about abortion and how does it affect behavior)?

D. The difficult global question: out of the complex of social and economic institutions, which elements affect elements of the reproductive institutions-values, intermediate variables, fertility?

(The classical sociological proposition is that high fertility and large family values are the result of a society in which family and kinship are so central to all institutions that most of what men want in life depends on family and especially children. Therefore, the relation of the family to other institutions under changing social conditions is a key element in the research agenda. As more and more of life depends on specialized nonfamilial institutions how does this affect the desire for children and fertility?)

E. How does declining mortality affect all the preceding relations?

Will declining mortality provide enough additional living children so that parents will move to birth control even with only minimal development on other fronts?

We have just outlined the major elements of all reproductive systems since the beginning of human society. The new and unique element being added to the structures of societies are the planned interventions to change norms, birth control practices, and fertility. Therefore,

F. The "family planning program" must be observed for information:

1. About birth control (sterilization, contraception, abortion)

   a. How many couples accept each method offered?
   b. For how many is the program-method a substitution for a method previously practiced independently? In the case of substitution, is there any change in effectiveness?

c. At successive time periods after acceptance (until menopause), how many are practicing

(1) The original method accepted.
(2) Another program method.
(3) Another method outside of the program.

d. What are the important characteristics of the acceptors and especially

(1) What is their age, number of children, and the period since they last bore a child.
(2) How do acceptance rates relate to some key indicators of modernization, e.g., education, or modern employment status?

2. About fertility:

a. Prior to acceptance, how does fertility of the acceptors compare with that of other married women of their own age group?

b. At specific time periods after acceptance, how does the fertility of acceptors (whether still in the program or not) compare with their own prior fertility or with that of non-acceptors?

3. About both birth control and fertility:

The real object of interest is the couple, not the method or the program. Therefore, the key question is: what is the birth control practice and the fertility of all the couples X years after they enter the program, regardless of whether they are still using a program method? The more usual question is: how many gave up the pill or the IUD or how many births did those devices avert? This means the omission of what happens to the large number of couples who leave the program but may have been affected by it.

4. About the birth control and fertility of significant strata and areas--do they change in such a way as to indicate whether the program makes a difference?

(e.g., do illiterates or farmers or particular castes who practice little contraception take it up readily and reduce their fertility in some relation to program effort?)

5. About local area data to be used as a check on whether the program or the trend of the times make the difference:

   Use local area data (e.g., India's 350 plus Districts or Taiwan's 361 local administrative units).

   a. Do program inputs have results on acceptances which transcend the expected effects of demographic, social, and economic trends in the local area?

   b. Do program acceptances result in fertility reductions greater than could be expected without the program from the other characteristics of the areas?

III. What we know:

A. Fertility Measures

1. With a few conspicuous exceptions, we are tragically ignorant about these ultimate program measures for most developing populations, and especially for the large countries. We often have only gross estimates that the birth rate is high (e.g., 38-44). Often we do not know whether the total crude birth rate is rising or falling (e.g., that is true now for Pakistan, India and Indonesia).

2. Obviously, then we also don't have data for most developing countries on the components determining the birth rates, e.g., if we don't know what age-specific birth rates are for married women, we can't make very good estimates about effects of a change in birth control or marriage practices. (E.g., a 20 percent decline in Hong Kong's birth rate from 1961 to 1965 was almost entirely a result of a peculiar age distribution

and not of smaller families. It required a special investigation to establish this and then to demonstrate that a 30 percent decline from 1965 to 1968 was not due to the age structure change but to real change in fertility and birth control.)

3. We also are usually without fertility measures for either specific important strata of the population or for the local administrative areas in which the program and other real social units operate. Therefore, it is difficult to know how fertility or birth control practice is related to program inputs or characteristics of the local areas. Such data have been analyzed for a few places. They are available but not analyzed in a few other places. They probably don't exist for most places.

4. There are important but little-known "discoveries" about the relation between fertility, age-structure and population growth, with profound implications for population policy:

   a. Major shifts in age structure from "young" to "old" populations result from fertility reductions and not from mortality reductions.

   b. Even if developing countries go immediately to a universal two-child family fertility level, it will take 60 to 70 years for population to stop growing (because it will take that long for their very young age distribution with many potential parents to be adjusted to the older stationary population).

   c. Populations with low birth rates and zero-population growth will be older populations.

B. The Intermediate Variables

1. Social surveys (KAP)[1] have begun to give us measurements for some countries, but

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[1] KAP is the usual abbreviation for sample survey studies of attitudes toward, knowledge and practice of family planning,

a. We do not have a real inventory of measurements of all these variables for a representative sample for any country at any single time.

We can get along without much of this information in early program stages, but almost any of these elements may become important as the program develops and we learn more about the reproductive system in a particular place. (For example, the fact that we know very little about the timing and frequency of coitus may not be crucial now, but it is ridiculous to assume that sex patterns will not affect reproduction! In India, for example, fertility rates are very low for women over 30. No one knows to what extent this results from low rates of coitus, lower fecundability, induced abortion or what. In view of more immediate information needs this does not have high priority. But who knows how better diet, modernization, and lower mortality will affect this situation? It is only because the very high Indian fertility at young ages is offset by low rates at older ages that their national birth rate is as low as 40 or so.)

b. For most countries there are no significant sample studies representing the whole population. Where there are national studies they are rarely repeated to provide trends. Often data are collected but not analyzed or are analyzed too superficially to be useful.

2. For only a few populations do we have studies of the distribution of fecundability--the probability of conception in the absence of contraception. Such data are needed for new sophisticated fertility models (which are promising with proper inputs). Whether sophisticated or not, almost all estimates of births--averted by programs or of fertility potentials ultimately refer to

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with varying additions of fertility histories and social and economic data.

fecundability. (There are some data indicating, for example, that fecundability is less for the very lowest strata than for higher strata in Taiwan and possibly in India. Rising living standards may therefore increase the risk of conception, so that more birth control may be needed to prevent birth rates from rising and reductions will require extra inputs.)

3. We know very little about abortion, despite the fact that it probably is still the most widely used single method of birth control on a global basis. The most rapid birth rate declines have been associated with legalization of abortion. For most countries we do not know even its incidence, especially where it is illegal. There are a few important studies in some countries like Hungary and Czechoslovakia. Japan, with the most remarkable history in this area, has done very little to study it. (It certainly appears to be true that the legalization at least accelerates greatly the coming of a fertility decline that might have come anyway--but much later. This could be studied by considering the fertility and birth control practice of different population strata, e.g., in Japan, before and after the legalization. Large, sudden shifts are unlikely to have come "naturally." The reverse spectacular doubling of Romanian fertility in one year when legal abortion was withdrawn is a "natural experiment" of very great importance. I don't know that anyone is studying it.)

4. Proportions married at each age differ greatly between countries and over time and can have significant effects on fertility and population growth. We have data on some aspects of this from census reports and sample surveys in many countries. However, we know very little about what social and economic factors or social policies produce different marriage patterns.

C. Norms about Family Size and the Intermediate Variables:

1. We have KAP studies for some (but not enough) countries on wanted, expected, and idealized numbers of children. Few of these are trend studies. It is important that in almost every developing country studied there is at least a large minority who say they want only moderate numbers of children (less than they are having), *but*

2. We know very little about:

   a. Which attitude measures relate most closely to behavior.

   b. What inhibits many couples who say they want no more children from accepting birth control services.

3. There are promising results from studies which ask the attitude questions, then introduce the programs, and then follow-up to try to explain the discrepancies.

D. Social and Economic Factors Affecting Fertility Norms, Fertility and the Intermediate Variables:

1. We have only a few examples of multivariate analysis of how mortality, social development indices, and program inputs interact to affect fertility and other elements in the reproductive system. Such studies are useful even where there is no program. Is it true that certain levels of development are needed before birth control is practiced and fertility comes down? If so, what combinations of changes at what levels make the difference?

2. Important historical studies are being done in Europe on the correlates of its 19th century fertility decline. So far they do not support the thesis that any specific combination of development changes preceded the fertility decline in any uniform way. Therefore, shaky generalizations from history in quite different places should not inhibit plausible program interventions, if they are carefully monitored and have no obvious counterproductive risks.

3. We have a few examples of "successful" program in places that seemed unpromising a priori in terms of prior development levels (e.g., Ghandigram in India and Prothoram in Thailand). Probably, there are many others, but there is insufficient attention to finding and analyzing the reasons for "successes" and "failures."

E. "Program Research": who accepts, how long do they stay in the program, what happens to them?

1. Program evaluation studies almost always concentrate first on the number and, then, on the characteristics of acceptors. An important finding in several places where data are available is that the majority of acceptors are from the less modern and lower status groups (illiterate, farmers, poor, etc.). There is evidence that even the comparative rate of acceptance is not low in these groups. This is important, because (a) most of the population are in these strata and (b) sudden large increases in contraceptive practice in such groups are unlikely to be a spontaneous response to other forces, without the program inputs. Unfortunately, even studies at this elementary level of "who accepts" are often absent where they are very important. For example, several local studies in India suggest that the incentive and "promoter" system for finding sterilization cases brings in for vasectomies fairly large numbers of men whose wives are so old or had babies so long ago that the probability of additional births is very low. Obviously, to the extent that the local studies are generally applicable, there are several very important implications: (a) the incentive system and the value of the sterilization statistics need review, (b) the data might help to explain why there was a very large drop in the number of sterilizations last year. So far as I was able to discover last summer, it has not been possible yet to assemble such data for an adequate sample of the several million sterilized couples to test what is generally true.

2. After just counting the number and characteristics of acceptors, the next step has been concern about the termination rates for the pill, IUD, etc. Who terminates when? A few countries (e.g., Taiwan and Korea) have such studies for successive time periods which give trends. Other countries (e.g., Singapore and Malaysia) have their first studies nearing completion. Some very large programs (e.g., the USA, India) do not have studies for adequate samples representing the populations being served.

3. Even more important are studies of what happens to the contraceptive practice and fertility of the acceptors 1, 2, 5 years, etc. later. This is rare but crucial, because that is the ultimate interest of the program. For example, the Taiwan studies indicate that acceptors have exceptionally low birth rates even four years after taking the IUD, although a majority have given up the IUD and are not in the program. So far as I know, only Taiwan and Korea have such data to compare with data on the general population.

4. Research on the internal mechanisms of the program itself: I confess to bias here: I give priority to information about the characteristics and fate of the clients and much less to studies of the program staff and their relations to each other. Studies of the relation of staff to clients would be more pertinent, but these are rare. Except for the first category listed below, I have seen little research in this area which really helps much to guide the program and improve final results. There are significant possibilities, so perhaps more should be done.

A few comments:

a. Most of the measurement here simply relate to necessary administrative questions of how many clinics, workers of different kinds, etc. are located where. This is essential for administration.

(My observations are that some additional simple factual studies could be helpful, e.g., how many field workers cannot do their work, because they lack transport, what is the effective population within walking distance of the clinic, etc.)

b. I know of a very few studies (one in Taiwan and one in India) in which the input of program effort and the characteristics of the workers are related to output. It may seem obvious that these should show that input affects output, but it is not a necessary result.

c. Quasi-experiments can be very helpful in this field, but very few programs have the flexible research arm to conduct these studies. I illustrate mainly from Taiwan because I know that work best:

   (1) Periodically offering the service free (instead of for the usual small fee) was found to increase the overall rate of acceptance despite a temporary downturn when the fee was restored.

   (2) A saturation program of meetings in every village was found to be less efficient than spacing them in focal villages and letting diffusion do the rest.

   (3) Concentrating on the minority of women with a recent birth is effective in Taiwan (and everywhere else I know). A program of mailings to new mothers in Taiwan brings in a gratifying return at a very low cost. It is amazing that priority for new mothers is not the practice everywhere. Even if only 50 percent of the births are registered that still provides more potential prospects than the field workers usually can handle. (In West Bengal last summer, I found that the prime prospects of this kind were not the organized basis for field work. Instead there was a painful effort to list all married women of childbearing age in an "eligible couple register" and then to canvass this endless list of women many of whom had little risk of another child.)

IV. A perspective: despite the major shortcomings in the research effort, we have learned quite a lot already, and programs can proceed without scientific detail.

There is considerable truth in this statement which moderates the pessimism implicit in the previous sections. Since most programs began just a few years ago to change very complex behaviors imbedded in traditional institutions, we may not have done so badly. Some things we have learned:

A. "Successes" are possible. In at least three or four countries a substantial proportion of all married women of childbearing years have accepted birth control from a program, either as the first attempt or to find a better method. Such a massive acceptance in a planned program is unique in human history. No one predicted these successes in advance. All statements to the effect that they are just a result of development (and not the program) are ex-post-facto, I believe.

B. Opposition to programs once they begin appears to be minimal (with the possible exception of the leadership in some Latin American countries).

Everywhere the people are found to be ahead of the leadership, which consistently underestimates their constituencies on this issue. (Benchmark surveys of public interest in birth control, number of children wanted, etc., are useful, partly, because they can help to convince leaders that there is a favorable attitude in the public and, often, a considerable demand of which they were unaware. Such data also help to legitimize birth control, because the individuals who approve personally can be reassured that they do not stand alone.)

C. In the countries with "successful" programs (many acceptors) birth rates have fallen substantially. How much is due to the program is controversial; the fact of fertility decline is not.

D. In some countries the acceptors are mainly women over 30 and with more than a few children. This is not a sign of failure, as some argue, because:

1. In most countries birth rates have been reduced by 25 percent or more through action by these couples who are "older" or have large families.

2. These older women with more children become acceptors precisely because they have higher than average fecundability, so they are capable of having many more children.

3. With lower mortality women now find they have alive all the children they want by age 30, so this is the place where family-population-pressure is likely to operate.

4. In places like Taiwan and Hong Kong, as the program continues the acceptors are steadily becoming younger, with fewer children, etc. The influence spreads from older women with the immediate problem to those who must anticipate the problem.

E. In a few places (Hong Kong, Singapore, Malaysia) fertility rates are falling quite rapidly at younger ages. This is unexpected and promising. Perhaps it will happen elsewhere spontaneously. More important, perhaps we can learn enough about why this different pattern occurs here to use the information elsewhere.

F. The fact that lower status and less modern couples are adopting contraception in large numbers in places like Taiwan, Korea, Singapore, Malaysia, Hong Kong is encouraging. It was not expected initially. It may not be transferable to places where the lower stratum is worse off and there is less development, but that is not yet demonstrated.

G. Action can go forward on a considerable scale without an initial elaborate research program, but sensible, concurrent sample studies and small experiments are important inputs for modifying policy as the program meets a succession of unanticipated problems, e.g., the following are some specific examples of specific connections between research and positive program actions:

1. A fairly modest small baseline survey in Taichung, Taiwan provided evidence that there was so little public opposition and so much demand that a much

larger program was feasible, and it was begun immediately.

2. After it was clear that large numbers were accepting, rumors about side effects, terminations, etc. were prevalent. A set of studies established the rate of terminations for different groups and the nature of the complaints for really representative samples. This was one element in a vigorous program to reassure the workers and the doctors and to explain what was happening. The result was that the acceptance rate stayed up. (I believe that if India had conducted such studies with adequate samples and then put the information into a vigorous program for reeducation and reassurance of the workers, the IUD program might not have collapsed there. At the time program emphasis shifted from the IUD to sterilization, their termination rates were not very different from those in Taiwan and Korea.)

3. The next problem was what to do about the large number of terminators. A follow-up study of all acceptors revealed that the terminators found ways to keep their fertility low outside the program. So a decision was made to keep the field workers working mainly with new cases and not to divert them to mass revisiting of the old case load.

Such studies do not solve the problems or dictate policy, but they provide information which may eliminate some options and indicate ranges of feasibility and consequence for others. Any real information helps to reassure the field workers and that is probably more important than reassuring the public directly. It is important for the workers to feel that the administrators are in touch with the facts and acting on them.

H. The mass of records routinely accumulated in the programs is largely useless for research and often for administration, because it is too detailed, diverts from real program work, and is too cumbersome for analysis, so

1. For research only a few key characteristics of the acceptors should be collected on standard forms. These can be processed on a sample basis and only at

intervals likely to reveal changes. This can enormously decrease the flow of paper and work and should raise the morale of field workers.

2. Detailed data for analytical evaluation can be obtained at intervals from samples of acceptors and of the general population.

I. The sample surveys that produce these immediate program data can also obtain data pertinent to the longer-run understanding of the reproductive system, e.g., for Taiwan, and India, there are estimates of how much the period of amenorrhea is affected by infant mortality and by breast-feeding. We also know that modernization decreases breast-feeding in Taiwan and, thus, decreases the traditional "protection" from longer postpartum amenorrhea. Those facts are relevant for both understanding and programs.

J. Whether such very large and important programs as those in India and Pakistan are labeled "successes" or "failures" is a semantic matter, but they are very far from meeting their objectives, most observers would agree. We have certainly learned from the gross facts that opening thousands of clinics and hiring thousands of workers does not guarantee that the program objectives will be met. However, I believe that we can learn a great deal from "failures" too. For example:

1. When the Indian and Pakistani programs greatly increased their inputs of effort and money and people a few years ago, there was a response fairly quickly from some millions. Obviously, there must have been a reservoir of interested people. The results were considerable, considering the limited character of the resources and organization.

2. The rapid falling off in India first of the IUD program and then of the sterilization program has been cited by some as evidence that without significantly greater social and economic development the Indian people are not ready for birth control. This is possible, but I am unprepared to accept it as a basis for policy in view of other considerations.

(a) I do not think that the Indian program has been carried out with the planned mobilization of people, equipment, and resources in most places. We don't know what would happen if this were done.

(b) When the Indian program has faced various crises (as all programs do) it has not had the basic facts about what was happening in the program and to the clients as a basis for rational decision.

(c) I have seen no systematic presentation of the range of performance (e.g., by districts) for India, but presumably there is a considerable range. We do know that there have been successes in some small experimental areas.

(d) In many places the lack of personnel, equipment, training is so clear that "research" on the "failure" is beside the point.

Therefore, I conclude that it is still an open question as to how much can be accomplished if India's considerable reservoir of talent can be mobilized by its own leaders to concentrate the available resources in the more "promising" places.

K. There is an accumulating body of evidence from program studies, of "how to do it." But we don't have enough of them yet to know how much is usable in widely different contexts, e.g.:

1. In Taichung it was found that visits to husbands and wives were little better than visits to wives alone.

2. In Comilla, Pakistan, distribution of conventional contraceptives through small shopkeepers was effective, especially to those actively involved in a cooperative development program.

3. Postpartum visits to women in the hospitals in Singapore (and elsewhere) are highly effective.

4. In Hong Kong field workers had been giving out "clinic" referral slips house-to-house and other

ways with the emphasis on giving out large numbers in very brief contacts. A new plan concentrated the contacts in pre-natal, post-natal, and lying-in situations with more time to each contact. The result was more acceptors, with fewer referral slips.

5. In Ghandigram, working through community leaders in particular ways and in context of other health and and development work has been successful in reducing birth rates.

There are a large number of such specific substantive findings. Their generalization and cumulation is still to be done, perhaps resulting in better theory.

L. There has been a substantial increase in the research on different parts of the bio-social reproductive system, without any explicit reference to population programs. Some of this is of immediate help. More of it will help in the long run. A few examples:

1. Work on how to estimate fertility rates and other measures from defective official data and special surveys is of great importance. Notable progress has been made but more tests on a large scale will help to improve the theory and the hardware.

2. Recent findings in USA that 20 percent plus of the children born in the period 1960-65 were "unwanted" may change the whole basis for discussion of U.S. population policy. Most of us assumed that to lower birth rates substantially in the U.S. required changing the number of children wanted. The new data suggest that helping people to have just what they want will make a lot of difference.

3. Studies in many countries are demonstrating that when women work for pay outside of the familial context they are much more likely to want and have fewer children, use contraception, abortion, etc.

V. What is to be done?

It is not feasible to lay out in a few pages a global strategy for needed research. A few general principles and suggestions may serve as a basis for discussion:

A. High priority should be given to measuring birth rates and their major components annually at the national level. Measurements for major strata and for local areas are important too. Experiments on how to do this are promising but still far from perfect. A serious sustained effort with enough resources should produce increasingly better results as theory and experience interact.

B. Every major program should have access to a facility for doing sample surveys representing its acceptors and the whole population of childbearing age. The immediate objective is to monitor the marriage patterns, birth control practices and fertility levels of each age-group in the childbearing years, whether in or out of the program. The same system of surveys can be used for other studies in depth, when the manpower is available. Building up both experience and benchmark data will make it possible to collect information on short notice for the succession of problems that cannot now be anticipated.

Studies done in convenient clinics or experimental areas are satisfactory for some biological problems and tests. They do not represent the social-demographic reality of the major administrative areas in which the programs operate.

C. The "natural" and "contrived" experiments that are always going on can be utilized to great advantage. For example:

1. It is said that in the areas touched by "the green revolution" there is a ferment and readiness for change. Select some of these areas for all-out inputs of program effort (with some left as controls). At the same time go all-out in some areas not touched by the "green revolution" (with others for controls).

2. In many cases the "experiment" has already been done. What is needed is an analysis. The Family Planning and Health Ministry in New Delhi has month-by-month reports, by district, of the input of effort and the reported output of sterilizations and IUD acceptances. The Delhi School of Economics

has a set of IBM cards giving all of the district level data from the last census and some more recent data could be added. Bringing these together would permit an analysis of the relative influence of the program and the characteristics of the areas and the population in program acceptances.

D. Studies of the relation between economic factors and demography need much more attention. Economists are only beginning to work on demographic problems in any numbers. They are likely to concentrate on macro-economic analyses which are important but not enough. We need to consider the micro-level, both for population and economic development: how are fertility, age-at-marriage, child-spacing, etc. related to savings, consumption, personal economic desires and motives, etc.? There are few such studies, but they are promising.

E. At least for a time, every country is likely to need its own data and some research. It is a misleading illusion, for example, that there is a constant formula which can convert numbers of pill or IUD users into the numbers of births averted by the program. For example, how many births are averted by 100,000 IUD insertions depends on how many births the couples would have had without the insertions. This in turn depends (at least) on the following characteristics of the couples: their prior fertility, their ages, what they were already doing about birth control. These facts are neither biological or social constants, so there is no universal conversion coefficient. With enough studies in different kinds of places, we may develop ranges of probable magnitude which can be used when local studies are difficult. Some present estimates of "births averted" by program X probably are grossly in error because they are based on assumptions borrowed from very different places.

F. In a few rather different countries the whole biosocial system affecting reproduction should be studied over time to provide measurements, models, and basic relationships which can be tested and applied in other settings. This takes too much skilled manpower to be done everywhere. It is important to do it in a few places if we take the view that this is a set of problems that will be acute for at least 50 years and present in various forms for centuries to come. We should be getting ready to deal with some rather different problems and population parameters if we achieve the zero growth goal.

VI. Why aren't we doing more?

1. The programs are very new. Significant interest in population is very recent. The amount of research on reproductive systems is rising, but still modest in scope.

2. There are very few experienced research analysts in this field, and few work at this full time. However, there are good people working at good centers. So far as I know, there is not a single adequately staffed and equipped research institute with a primary commitment to this problem. There are none in which the scale of the effort and the full-time commitment is really proportionate to the problems now being posed.

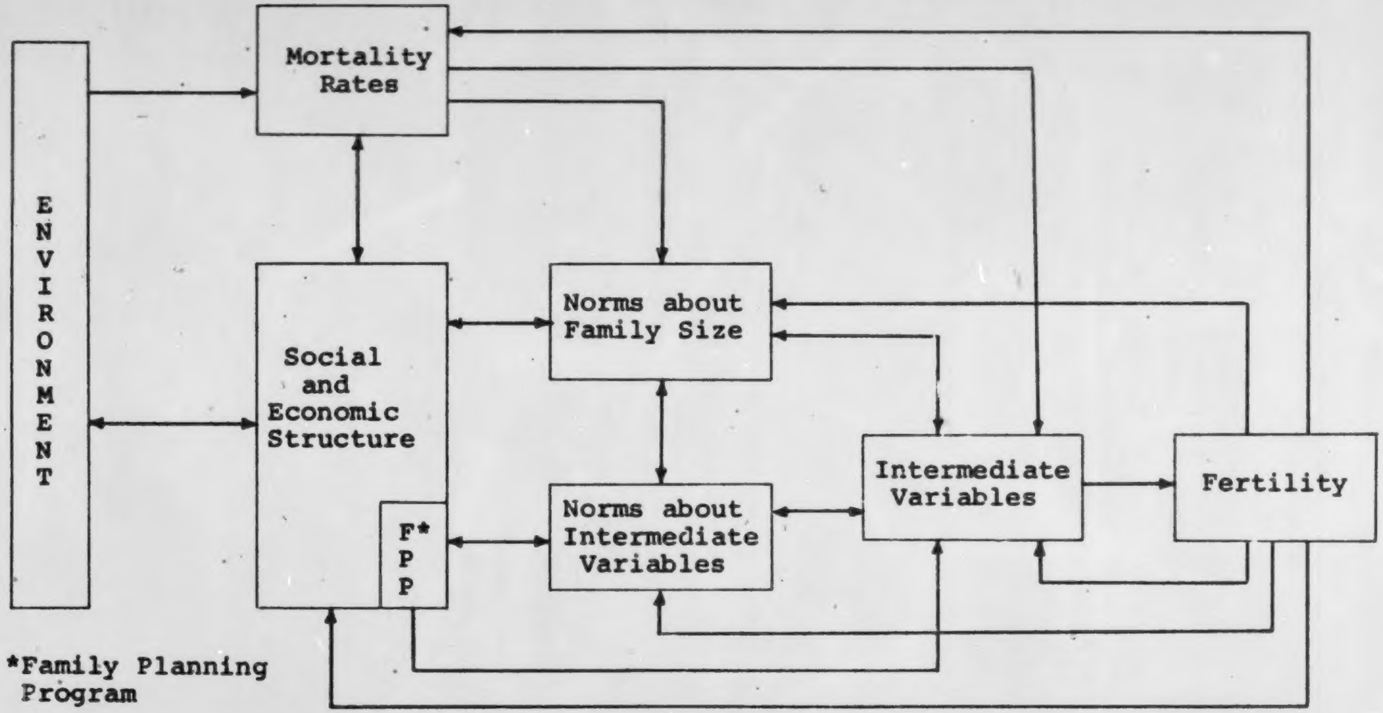
3. There is insufficient recognition by administrators of the fact that their choices among options in important program decisions can be narrowed and improved by research and evaluation. They tend to regard research as an irrelevant diversion, especially if it does not bear on immediate problems.

4. Evaluation and research probably are politically threatening. It is likely to reveal many of the serious deficiencies of the program, including major areas of wastage and possibly of corruption.

I did not have the time necessary to provide detailed references to the literature. This will be done after the conference, if it appears to be useful.

I want to acknowledge, that the idea and classification of the "Intermediate Variables" is taken from Kingsley Davis and Judith Blake, "Social Structure and Fertility: An Analytic Framework," Economic Development and Cultural Change, April, 1956.

Diagram A



*Family Planning Program

Intermediate Variables

1. % of population of each reproductive age in sexual unions: as affected by age of entry into union, permanent celibacy, periods between or following unions determined by divorce, death, separation, and rules about entering later unions.

2. Exposure to intercourse within unions: as affected by voluntary or involuntary abstinence, and timing and frequency of coitus.

3. Exposure to conception (for periods of intercourse): involuntary infecundity, voluntary infecundity (e.g., sterilization), contraception by mechanical, chemical, or other means.

4. Gestation Variables: involuntary or voluntary fetal mortality.

Population and Development: An Agenda for Policy-Oriented Research

by

Paul Demeny
The Population Council

October, 1974

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The Population Problem

Concern with "population" and thus, potentially, the emergence of a social demand for population processes that are different from those actually obtaining in a society, derives from concern with a better satisfaction of human wants. Using the convenient, if bland, short-hand notation, the concern with population is a concern with "development." The minuscule component of the macro-demographic processes that is under the direct control of any given individual (or individual couple) displays the relationship between human wants and demographic actions simply and directly. In demographic as in other matters, individuals can be trusted to pursue their own interests and satisfactions as best as their circumstances permit. But the ability of any individual to secure for himself behavior by others that is most suited to his welfare is severely limited.

The problem is best seen as one of market failure. As Adam Smith observed, it is not from the benevolence of the baker that we expect our daily bread but from the baker's regard to his own interest. In acquiring what we need from the baker, we address ourselves not to his humanity but to his self-love. This classic mechanism of eliciting actions that satisfy our wants, however, cannot work when appropriate markets do not exist. Where does the citizen go to "purchase" a future in which his grandchildren will live in a U.S. of 300 rather than 400 million? Not that the 300 figure is likely to have some appeal to him qua population size but, being well informed, our citizen may shrewdly calculate that, on balance, a population trajectory that leads to the former rather than the latter population numbers exerts an influence on things that do matter to him (and to his offspring) and makes the obtaining of the lower figure worth some sacrifice. But, alas, there exist no Smithian markets offering alternative population trajectories to individuals' choosing. Like the production of bread, that component of human welfare that may be conceptually traceable to the demographic behavior prevailing in one's society has always depended on the self-interest of one's fellow citizens, but without benefit of a flexible mechanism by which self-interest is continually made responsive to society's needs. The pursuance of individual self-interest in matters demographic may, of course, add up to the common good. Various institutional arrangements, most notably systems of property rights and rules regulating the scope and nature of mutual obligations in a polity, can powerfully assist in bringing about such an outcome. But, just as likely, individual members of the society may be mutually hurting each other by their demographic behavior. Yet, to lament the absence of a corrective market relying on individual actions borders on the grotesque. Demographic processes are the result of a bewildering multiplicity of uncoordinated decisions: the contracting and enforcing costs that would be incurred in each citizen's arranging a mutually beneficial deal with the perhaps tens of millions of relevant actors are obviously utterly prohibitive and, even before that, so are the information costs that would be required for a proper evaluation by each citizen of his stake in the demographic behavior of the rest of the society.

The characteristics just noted render population processes a legitimate object of attention for collective and, in particular, governmental action. The achievement of socially advantageous modifications of demographic trends that is beyond the capacity of private markets to provide assumes the character of a public good that must be acquired, if at all, through the political process. A population problem exists whenever it can be plausibly assumed that such modifications are possible. The essential elements of the policy-making process aimed at eliminating the population problem may be summarized under five headings: (a) the production of alternative program proposals for social action that may suitably modify demographic processes (spanning the full range of feasible programs that have at least some probability of being adopted); (b) an assessment of the costs and a mapping of the various expected outcomes associated with each specific program proposal; (c) the submission of the results of activities (a) and (b) to political decision-making; (d) the execution of the selected program alternative; (e) the monitoring of the success of the program by comparing its performance with the assumptions on which its adoption was predicated feeding back to a modified reiteration of steps (a) to (d).

Tasks (a) and (b) are essentially scientific and technical; tasks (d) and (e) are primarily administrative and managerial while task (c) is normative and political. The existing rules of political decision-making that underlie the confrontation of values that is the essence of (c) however are themselves subject to rational scrutiny and analysis. Unsatisfactory outcomes of the policy-making process in particular may lead to new policy proposals that also incorporate modifications of the existing rules of decision-making concerning demographic matters. Scientific research concerning population--the subject of this brief note--is therefore relevant to all five aspects of the policy-making process identified above. The focus of the discussion that follows is, however, on items (a) and (b) of the list.

The Scope of Policy-Relevant Research

If individual decisions and acts concerning demographic matters confer benefits or impose costs on others than those making the decisions, a prima facie case exists for social intervention aimed at a just allocation of the external costs and benefits individual demographic acts generate. The nature of the arrangements prevailing in any given society on such matters will be primarily reflective of the values held by its members; of the distribution of power by which these values are weighed in the political process; and of the ability of the social system to translate preferences expressed through that process into effective mechanisms governing individual behavior. Social science research can contribute to improved population policies by supplying objective, organized information needed in the deliberations in the political process, including a better understanding of the mechanisms by which policy decisions are reached. Specifically, the scope of the requisite research tasks may be envisaged as covering four main elements and their interactions.

By the scientific observer trying to understand demographic behavior, demographic processes may be interpreted as endogenously determined variables within a general system of human behavior represented schematically by the closed loop in Figure 1a. Demographic processes in such a framework may be seen as a "behavioral" trait of human populations within a much larger class of behavioral characteristics. Such processes exert an impact on society; the impact is examined, if only implicitly, with reference to some ideal system, the examination elicits a feed-back signal that results in such modification of the original behavior as to produce an impact more in keeping with the ideal state. The scheme is depicted in Figure 1b.

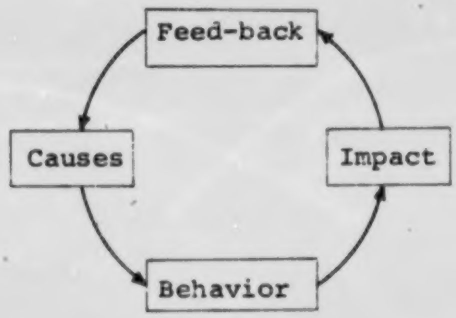

Figure 1a

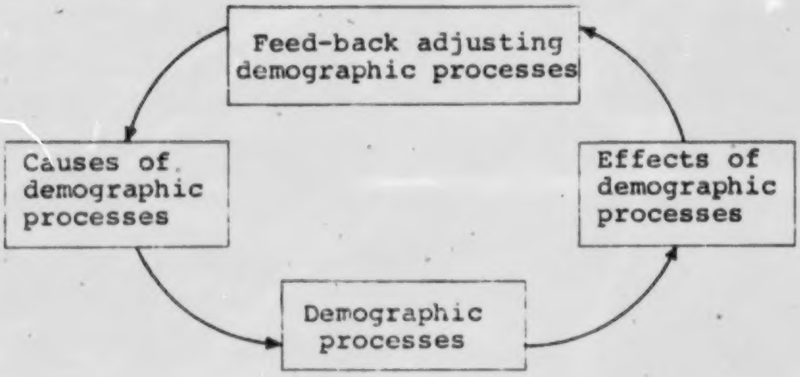
Feed-back adjusting demographic processes
Causes of demographic processes
Effects of demographic processes
Demographic processes

Figure 1b

The central issue of public policy in the field of population policy proper is the optimality of the existing complex of feed-back signals that influence demographic behavior. Careful analysis presumably could uncover and explain the function of each existing signal, although success in such an endeavor would presumably require a full blown model of the entire social system (the rudiments of which are shown in Figure 1a) since many of the social arrangements that influence demographic behavior do so as a more or less accidental by-product of their primary non-demographic function. While all existing arrangements have at one time or another served, and most of them still serve, functions that can be understood as socially useful in some meaningful sense, the process which originated their existing particular configuration--a mixture of the secular evolutionary process, long-term historical development and the modern growth of conscious statist intervention producing an accretion of often haphazard and conflicting social, economic and legal measures bearing on demographic behavior--is likely to be far from optimal. Given the inherently sluggish response of many of the relevant signals to changing circumstances, this must be particularly so under the conditions of rapid change transforming the character of the demographic processes and other facets of the socio-economic system. Suboptimality of a given situation is to be understood in this context as a state of affairs where a rearrangement is possible that would leave every member of the society at least potentially better off than he was in the status quo ante--that is where the gainers from the new arrangement could fully compensate the losers and still preserve some of the gains. In practical terms, a measure may be considered as an improvement if it successfully passes through the political process with full observation of the existing rules of the game. The essence of that process is the orderly confrontation and comparative weighing of the costs and benefits of the proposed policy change. The task of policy analysis is to design measures that pass that test. An optimal state is reached when acceptable rearrangements are no longer possible. (Obviously, such a definition of optimum implies no state of bliss in any absolute sense. The choices may be, and often are, perceived as between alternatives that differ only in their degree of unpleasantness.)

Such an interpretation of the role of policy formulation implies that social scientists, *qua* social scientists cannot "advocate" or "recommend" policy in the strict sense of those terms. What may be interpreted as "policy recommendation" originating from social science research falls, broadly speaking, into one of the following overlapping categories:

(a) Recommendation that a specified policy design be submitted to the scrutiny of the appropriate political process. Elementary wisdom would dictate that such recommendation be made only if prior analysis of the costs and benefits of the proposal, in the light of the value system and political realities of the society in question, are such that adoption of the policy design is not totally implausible. That such recommendations may be at all feasible is explained by the fact that they are likely to originate from, and be accompanied by, analyses and a marshalling of evidence that sheds significant new light on the issue in question thus enabling the body politic to engage in a rational argument on a higher level of consciousness than was theretofore possible.

(b) Analyses of possible population policy measures that include an explicit consideration of values and political processes and that lead to the conclusion that certain elements of the existing policy stance are, in fact, inconsistent with the best interests of the society in question. Such an analysis amounts to a stronger form of the recommendation of type (a): it couples the recommendation that the policy be considered with the prediction that once considered the policy in fact will be adopted.

(c) Analyses of the barriers to the adoption of certain policy measures whose adoption under certain (perhaps not too different) circumstances may appear advantageous to a society, even if no such agreement is now feasible. No recommendations are made or implied, but the analysis may precipitate a process of evolution that renders a policy improvement possible.

(d) Once a population policy decision has been made through the appropriate political process, numerous unsettled technical questions of implementation remain open requiring decisions which rational but not technically competent policy-makers may wish to handle through hiring "experts." (The case is analogous to a decision to build a bridge of certain general specifications--e.g., concerning its location, capacity and cost--where the exact design is left to engineering judgment.) Policy recommendations are made, but they are constrained by the prior policy decision and their adoption remains subject to political control, even if that control is not necessarily exercised. The prior decision, of course, may simply call for, hence legitimate, explicit policy recommendations by experts.

Population Policy and Development Policy

The scope of research tasks suggested by Figure 1b delineates a vast array of social science activities that are relevant to the formulation of improved population policies. Better knowledge of demographic processes; their likely future evolution without conscious policy intervention; and knowledge of the factors that determine these processes and of their consequences are of obvious potential use in working out policy proposals and in assessing the attractiveness, if any, of the balance of the benefits and costs likely to be experienced should the proposals be actually adopted and executed. The many obvious subdivisions of these tasks--e.g., separate considerations of fertility, mortality, distribution and growth--need not be detailed here. Nor would it be fruitful to produce a catalogue of specific research tasks and their comparative importance: generalizations that abstract from the needs in concrete situations are apt to be vacuous. A further examination of the nature of the policy problem however may shed some useful light on the kind of knowledge most needed in policy deliberations and suggest a strategy on the allocation of efforts in policy oriented research.

A weakness of the scheme represented in Figure 1b is that it may encourage thinking of population policy as a self-contained unit within the general domain of development policies. In considering alternative feasible population programs it is imperative to keep in mind however that demographic "targets" most often are merely intermediate goods: they are of interest for social welfare mainly, though not entirely, through their influence on non-demographic factors. (The degree to which individuals are able and permitted to realize their family size ideals, for instance, is obviously a variable that enters the definition of welfare directly.) The state of a society may be described through a variety of mutually interrelated variables: for the present purposes such "state variables" may be classified in two groups: demographic and socio-economic. "Welfare" of a society is a function of the state variables. The role of the government in seeking to achieve higher levels of social welfare (as defined by the social process) is to bring into play or modify various elements of the social system ("instrument variables") that affect the state variables in such a fashion that the resulting level of social welfare is improved. The selection of policies to that end should furthermore be such that over time the maximum possible welfare improvement is achieved.

Simultaneously with governmental actions seeking welfare improvement, and in interaction with such actions, there operates a "natural feedback" from dissatisfaction with perceived welfare levels by individuals or their various natural groupings as a result of which individuals modify their demographic and socio-economic behavior to improve their welfare. The design of proper governmental action presupposes an understanding of all these elements, concisely depicted in Figure 2.

The central issues of the population policy debate revolve around the simultaneous consideration of the relationships summarized in Figure 2. What are the instruments through which governments can exert a direct influence on demographic variables? What is the expected impact of such policies on welfare (net of costs), directly, and indirectly through their influence on non-demographic state variables? How does the effectiveness of demographic policies compare with that of direct action on socioeconomic variables? How are these considerations affected by the expected impact of the natural feed-back adjusting demographic and economic behavior? The knowledge needed for answering these and similar questions is obviously gravely deficient in most situations. This fact virtually guarantees that the status quo of the governmental stance on population matters is everywhere ridden with inefficiencies that cost-reducing innovations in policy design could eliminate. The role of policy-oriented social science research is to improve the understanding on the nature, intensity, direction and timing of the costs and benefits of possible policy interventions with demographic behavior, and thereby create a basis for a more rational deliberation on the modalities of such intervention.

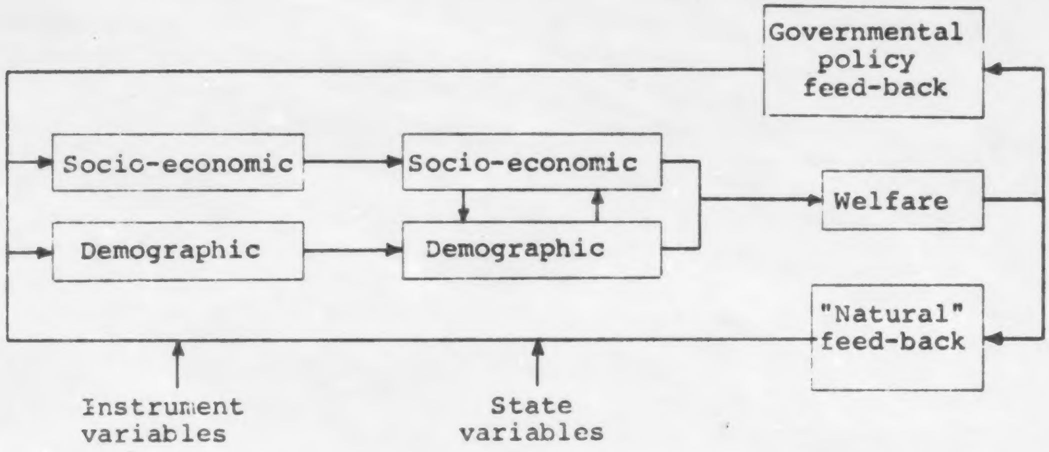

Figure 2

Population Policy and Social Welfare

The complexity of the tasks just outlined is discouraging. Realization of the only too obvious gaps in knowledge creates the often unresisted temptation to draw up endless lists of "high-priority" research projects and to declare that the successful completion of these is a prerequisite for giving sound policy advice. This is a recipe for perpetual inaction or--since action is taking place under the pressure of felt problems--for minimizing the contribution of social science on whatever policies are being worked out. Broad gauge research projects on demographic processes and their causes and effects are clearly needed hence need be supported. But if the policy-making process is to await their simultaneous advance on all fronts, the process will be wasteful, both in the sense that work will be expended on nonessential research and that even significant completed research will rest unutilized.

The best way to remedy such a situation is to insist that, pending the production of better research results, utilizing the existing knowledge is better than groping in the dark or following one's best instincts. A systematic mustering of what we know now for the use of the policy-making process would not only make the policy debate more informed: it would also provide a device which would establish more realistic research priorities and would speed up the process of utilizing research as soon as its results are produced. Just as a university professor may learn a subject rapidly and efficiently (although at the cost of occasional embarrassment) through being suddenly thrust into teaching a course in it, the need for giving policy advice now will reveal the most obvious weaknesses and gaps in knowledge and exert a powerful demand for filling the gaps quickly and in a manner that will stand public scrutiny. Producing knowledge for some unspecified future use lacks the efficiency and directness of working for demand under pressure.

If the diagnosis implicit in the foregoing comments is not far off the mark the most urgent task to be performed, both for initiating and carrying out new policy-relevant research, starts with applying what we know now in helping to formulate population policies. This requires both a systematic analysis and evaluation of the performance of existing social measures influencing demographic processes and a thrust toward charting new directions. It is my belief that, somewhat paradoxically, the latter endeavor should rely only secondarily upon the exploration of population-influencing measures that refine existing approaches or are additional to the current armamentarium. Rather, the effort should be directed toward generating demand for population policies through advancing the analysis of the consequences of population processes. While it must not be forgotten that proper policy analysis must span the whole interrelated system depicted in Figures 1 and 2 above, there are at least three arguments that, indirectly, would seem to favor such an emphasis.

First, the results of research conducted up to now on the determinants of population change, in particular of fertility, do not warrant too sanguine an assessment as to the policy-relevant yield of such research endeavors. The proposition seems to hold, although at varying degrees of cogency, whether the research is focused on micro- or macro-determinants, or whether the disciplinary identification of the research is economics, sociology, anthropology, psychology, history or some combination of these. It may not be too far-fetched to suggest that we know nearly as much about fertility behavior as we will ever know, and perhaps will ever need to know on a practical level, and that our wisdom can be fairly summed up in the quasi-tautological proposition that couples behave with respect to fertility as if they were maximizing their satisfaction given their tastes and given the constraints of their environment. We also have a good deal of instinctive and documented knowledge on how changes in the environment (notably in incomes and relative prices) affect parental choices as to fertility and how tastes are, or can be, influenced by socio-cultural change. Obtaining exact quantitative predictions on the magnitude of fertility change, in response to changes in the determinants of fertility remains, however, an elusive objective. That progress on this score would facilitate the formulation of better policies is unquestionable but it is equally clear that lack of such progress alone would not retard meaningful policy action if a sufficiently strong demand for such action existed.

Secondly, the main thrust of manipulating fertility differentials thus far has been along the lines prescribed by family planning--that is the provision of information and means to help couples to better achieve their fertility desires. Operations analysis of existing family planning programs remains an important ongoing task if the full potential of these policies is to be realized. Still, better research performance alone on how to best carry out family planning is unlikely to speed up governmental action in the field of population. What could give a higher urgency to family planning programs is a greater felt social demand for reducing population growth. This must originate in an improved understanding of the consequences of population change.

Thirdly, concerning measures beyond "family planning" the policy analyst quickly finds himself on uneasy grounds. He can be fairly specific on how social policies could be modified to generate desired demographic results but, by their very nature (and unlike family planning) such measures tend to carry a high social cost. They cannot be proposed seriously until or unless a high level of felt social need for such policies emerges. Again the crucial issue is demand; in other words an issue tied to a better understanding of the consequences rather than of the determinants of population trends.

Additional arguments that directly favor a strong focus on the "consequences" area are rooted in the present state in which our knowledge on the consequences of population change finds itself. That state is grossly inadequate, yet promising of potentially rapid progress. The following considerations appear most relevant.

First, the consequences of population trends can be usefully charted, even if we lack the ability to predict such future trends with some precision. Population, in a time honored if not fully satisfactory manner, can be treated as exogenously given, and the investigation of the effects of population trends can be carried out on the basis of alternative hypotheses on future demographic developments.

Second, a large body of relevant scientific knowledge exists in a number of disciplinary fields ranging from water resources management to child psychology that could be brought to bear on the analysis of the consequences of demographic change as soon as a subject ceases to be the exclusive (and inappropriate) domain of demographers and, to a much lesser extent, of a small circle of social scientists with population interests. To accomplish the needed broadening of the intellectual base on which "consequences" studies must draw is a managerial task of some difficulty, but with proper institutional and financial support the task can be done.

Thirdly, and most importantly, virtually all past investigations in this area of interest suffered from a conceptual defect that, once the defect is made explicit, should be remediable. The defect is the nearly exclusive predilection of analysts for focusing on the effects of population change on a highly aggregated (typically national) level. Such an emphasis makes the analysis opaque since it dispenses with most aspects of the population problem that would make it a politically potent issue. The substance of politics is the clash and reconciliation of conflicting particular interests: unless the peculiarities and differences of the ways by which various subpopulations of a nation are affected by population change are well understood and explicated, action to deal with population problems will fail to acquire the natural constituencies on whose support it should vitally depend.

This last consideration indicates that the strategy for research and analysis should concentrate on nailing down the effects of population growth as they differentially impinge upon the interests of various social strata. The strata relevant for policy analysis will naturally differ from country to country but in each instance several classificatory criteria will be needed. One unquestionably important line of distinction should split the population along familiar demographic lines distinguishing among various age groups (very young children, children of school age, young people about to enter the labor force, people in the young labor force ages, those about to be retired, old people, households with two children, etc.) or focus on such groups as women in the childbearing age, young unmarrieds, couples, etc. Equally important would be distinctions between social classes as defined by economic criteria (employers, poor peasants, landless laborers, industrial workers, the lowest 20 percent in the income distribution, etc.); between the rural and the urban population; among religious or ethnic groups; etc. The population problem, if there is one, should be a felt problem, although in its different manifestations, by these various groupings of individuals. The untractability of the population problem thus far is explainable by the difficulty such groups necessarily experience in perceiving aggregate population processes deleterious to their welfare. It is the task of policy analysis to provide an accurate description of an elusive reality and thereby lift the population issue to the level of meaningful political discussion and bargaining.

Obviously the careful identification and analysis of where (on what persons or groups) the impact of population change falls should be carried out within the natural categories--familiar from studies on economic and social development--in which population-affected interests on various levels (ranging from the individual to the national) are perceived. They cover such areas as income levels and distribution, employment, housing, education, health, security, environmental amenities, food, taxes, inheritance, and national defense. What should distinguish the analysis from the usual attempt to trace the demographic impact on the appropriate success indicators is the effort to explicate in the analysis not only the aggregate effect on the nation as a whole, but also the impact on subgroups and the processes of redistribution that demographic change inevitably generates. Beyond introducing the needed political element in the population debate, such an effort is also bound to unearth multifarious potential ways in which modifications of existing social arrangements could bring the outcome of individual calculus on demographic decisions into closer correspondence with the social interest.

The most practical step to get on with the task would be to carry out well staffed and well organized investigations on the expected impact of plausible alternative future demographic trends on the welfare of society in as large a number of countries as feasible. First steps toward working out the framework of a prototype periodic "population impact report" (conceived as a genre somewhat analogous to report of councils of economic advisers) have been made at a recent workshop of development economists held in Istanbul in September 1974. The institutional and organizational support arrangements that in a number of countries may need to complement the requisite local efforts are now being explored by the Population Council as a follow-up to that meeting. Similar efforts are doubtlessly underway or are being initiated elsewhere. Their coordination and the securing of appropriate support for successfully carrying out such work (including support for research studies needed to produce better subsequent surveys) could be highly productive in contributing to the formulation of improved population policies.

Economic Research Priorities for Population Policy

by

Timothy King
World Bank

October, 1974

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This paper will consider research only in its relation to policies to reduce fertility. Population policy is, of course, normally considered to include policies designed to influence the other demographic variables of mortality and migration, and this paper does not wish to challenge this definition or to imply that these are universally of lesser importance. To some governments, high levels of infant and child mortality and rapid rural-urban migration appear to be the most important population problems. Both mortality and migration are likely to affect fertility and be in turn affected by it, and it is therefore artificial to consider them separately. But policies to influence these in the short run do normally turn on quite different issues, and it is not possible to consider research needs for them in a short paper. For similar reasons, this paper will not discuss research questions in what are sometimes described as "population-responsive" fields--employment, education, health, the environment, etc. The distinction between "population-determining" and "population-responsive" policies may be a

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Author's note:

Originally I had hoped to produce for this meeting a more complete, better balanced, and less hastily prepared paper. Unfortunately time constraints proved to be unexpectedly severe, and the present effort must be seen as a purely personal attempt to identify some of the questions on which research by economists might be of particular use to the makers of public policy in developing countries. While I have frequently discussed such issues with my colleagues in the World Bank, they have had no time to read this paper, and must be absolved from any responsibility for its contents. The paper also does not in any way consider what should be the World Bank's own research priorities in this field.

useful device for categorizing the main objective of policies but should not be pushed too far. Policies which act on population-responsive variables will affect the costs of, and benefits from, parenthood and will therefore themselves be population-determining.

This paper will focus on research that (1) might improve decisions about whether to adopt policies to reduce fertility and/or (2) might make such policies more effective.

The Needs of "Policy Makers" for Knowledge

In attempting to identify critical areas for policy-oriented research, this paper will touch on, but largely skirt around, two difficult areas, which really deserve much more attention. The first of these is the role that research can play in the process of policy making. For the purpose of this paper, it is convenient to think of the policy-making process as a synoptic one, carried on by a rational planner armed with a clearly defined social objective function. Presented with information, the planner calculates whether the new knowledge shifts the policies that would maximize social welfare over time, and if it does, adjusts his policies accordingly. This artificial and extremely naive view of the policy-making process lets us assume that irrational policies are due to a lack of information available to policy makers, rather than representing, say, compromises between conflicting interest groups. This still leaves open the question, to which we shall return, of whether inadequate policies reflect a genuine lack of answers to key questions and hence a need for more research, or whether they reflect a communications gap between researchers and policy makers.

Although outside the self-defined scope of this paper (though not of this meeting), since its subject is research by economists, it is worth noting that the process of policy decision-making in the population field is something that would be worth a good deal more study than it has received. It is of interest in its own right, and, by demonstrating what issues are likely to appear critical to policy makers, might help to narrow the communications gap between researchers and advisers and those who make population policy. Do we know, for example, why the Government of Mexico has shifted its attitude to population policy almost 180 degrees since 1970? It would not appear to be the results of any new research or revelations, or striking internal or external political or economic changes.

The second area of difficulty concerns the relative priorities of different lines of research. This is indeed the subject of this paper but I cannot claim to offer a very comprehensive treatment. The student of economics is taught at the outset to think in terms of constrained choices rather than needs, whether for private or public goods. Information about wants has no economic interpretation in the absence of information on prices and incomes. Similarly research priorities cannot be deduced simply from views about the degree of importance attached to particular gaps in knowledge. It is also necessary to make some reference to the opportunity costs of research resources if devoted to other fields, and to the likelihood that research in a particular direction will yield useful answers. Although judgments of this sort are made every day by governments, foundations, universities and others, probably few if any of these are supported by explicit analysis of the relative expected social marginal productivity of research in different fields, and I am not able to provide it here.

Why Is There Disagreement about the Desirability of Policies to Reduce Fertility?

Although about three-quarters of the population of the developing world live in countries with family planning programs that are making a deliberate attempt to recruit acceptors, this reflects the predominance of a relatively small number of Asian countries in the overall population picture. The great majority of individual developing country governments lack such policies, and nearly 80% of the inhabitants of Africa, and 85% of the inhabitants of Latin America, live in countries which do not have them (IBRD), 1974). Elsewhere, policy effectiveness may be hampered by insufficient political support or budgetary resources. Many people, including myself, would argue that the policy makers in most of these countries are, from the point of view of the welfare of the inhabitants themselves, mistaken in not having such policies or in pursuing them half-heartedly. Why is there this disagreement of view? To what extent might it be resolved by research?

Reasons for disagreement over policy issues (leaving aside questions of subjective personal interest) can be conveniently grouped into three: disagreement about values, difference in the information possessed by each side, and a lack of information leading both sides to make different judgments about facts. In any particular debate, it is often difficult to identify the source of divergence. Argument over the view that anti-natalist policies are undesirable because a larger population size implies greater political standing might turn on either (or both) of two things. The first is the weight that should be given to political standing compared to other social objectives, such as income per head--this involves a political value judgment. The second is the relationship between population size and political standing. This is a question of fact which in principle could be resolved by empirical research.

On several questions, a divergence of view may reflect a lack of knowledge or understanding of well-established research findings, rather than the need for more research itself. In discussing whether a disagreement over an issue arises from a lack among policy makers of appreciation or knowledge of facts that are established, or a lack of knowledge about the facts, I shall simply make a personal judgment as to whether a "professional consensus" exists. I shall not attempt a definition of this and my implicit criteria are highly subjective. At Bucharest, "the profession" spoke mainly at the Tribune (though so also did many who must lie outside it, by any definition), while the "policy makers" spoke at the Population Conference itself. A professional consensus does not mean agreement on all aspects of a particular question, or that there is no need for any further research. But the implication here is that from the point of view of improving policy, research in such areas is of relatively low priority.

Possible sources of divergence of view on the desirability of policies to reduce fertility include:

(i) Views as to the expected population size and rates of growth;
(ii) Views as to the seriousness of the impact of any given size or rate of growth of population on social objectives;
(iii) Views on the likelihood of technical progress which might reduce the seriousness of this impact;
(iv) Views of potential effectiveness, and hence of costs and benefits, of policies to slow down growth rates.

Each is discussed in turn.

(i) Views as to the Magnitude of Expected Demographic Change.

Calculations of the projected magnitudes of population growth with any particular assumptions about the patterns of

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mortality and fertility change are routine, and not a matter of dispute. The concept of the "population explosion" has been long accepted into the conventional wisdom. The nature of the in-built momentum of population growth resulting from the young age structure in LDCs has, however, by no means been universally grasped. The very substantial further growth of the population for several decades after it is assumed that replacement level fertility is achieved and maintained is, on first acquaintance, fairly startling. Even if one is not able to estimate accurately what the very large size of world or some national populations implies for development prospects, the numbers involved are so large as to raise doubts about the feasibility of the social and economic adjustments required. The subject has been well researched (Frejka, 1973) but I suspect that a communications gap between "the profession" and policy makers does still exist.

A more fundamental source of disagreement may concern the expected rate of change over time of fertility or mortality, and hence future rates of population growth and ultimate population size. There is clearly no professional consensus here at all. Discussion among policy makers at Bucharest mirrored, however imperfectly, divergences of view among the profession. These concerned particularly the view that "development" will, unaided by deliberate population policies, bring down fertility sufficiently--expressed in one of the World Population Year slogans "Take care of the People and the Population Will Take Care of Itself." A view about what this means in terms of future population growth requires a view on the expected rate of future development (on which the research needs are well outside the scope of this paper) and on the relationship between economic development and fertility decline.

The view that a sufficiently high level of economic development, with the social changes that accompany it, will be marked by fertility very much closer to replacement levels than prevails in developing countries now is, of course, unchallenged. But research into particular threshold values of social and economic variables which might yield satisfactory predictions of when fertility falls could be expected to occur does not appear to have produced such predictions; rather the reverse--it has suggested such a diverse pattern of demographic transition as to cast significant doubt as to whether it will ever be possible to use historical experience to make such predictions.

The sort of research that would improve the predictability of fertility decline would, of course, carry considerable policy implications for governments desiring to bring about such a decline. Research on the correlates of fertility has been extensive. Some of the findings have been suggestive of policy implications. For example, there is evidence that those countries where the benefits of economic advance have been widely shared have experienced a fall in fertility at an earlier stage of development (as measured by average per capita income) than those in which the benefits are highly concentrated (IBRD, 1974). There is also considerable evidence that higher levels of female education are usually associated with a lower level of fertility. Some caution is needed, however. Finding some correlation between the advance of a particular indicator of social and economic modernization and a decline in fertility does not establish that if that particular indicator is advanced in isolation, fertility will necessarily fall.

I am not sufficiently familiar with most of the research on the correlates of fertility to venture an estimate of the likelihood that further work either at a household level, from survey or census data, or using regional or national averages, will provide insights we do not already have. The World Fertility Survey data will provide considerable opportunities for analysis of fertility differentials. My own personal preference is for work that promises more behavioral insights. Without more work on models of household behavior, and without data that captures a much larger proportion of household affairs than does most available data, I am somewhat doubtful whether further work on the correlates of fertility is of the highest priority. But I say this from a position of comparative ignorance and stand ready to be corrected. I shall return again to research on household behavior below.

(ii) The Impact of Population Growth on Social Objectives.

What actual social objectives should be is a matter of political value judgment. Some governments do appear to attach value to population size as an objective in itself. Others may be more concerned with a larger total GNP than a higher GNP per head.

There may also be an implicit divergence of view on the weight that should be given to the welfare of future generations. Although there is a large body of economic literature on the selection of discount rates to use in social and economic choices, this remains in essence a question of political value judgment. The main impact of changes in fertility on most of the variables with which policy makers are concerned is a very long-term one. Many of the devices used by planners, such as a relatively high discount rate supposedly equivalent to the marginal rate of return on investment, or the use of five to ten year periods as planning horizons, will not capture the effects of fertility changes on the economy--for example, through their effects on the labor force. The very large population sizes expected during the next century will impose their costs upon the generations alive then. The use of virtually any discount rate means that the present values of these social costs are negligible. It is difficult to justify this philosophically; the concept of diminishing marginal utility of consumption which provides a justification for discounting future income streams would not seem relevant in this case.

In some countries, there may be a lack of understanding on the part of policy makers, of the consequences of economic growth which should be attributed to a failure of communications rather than an absence of research. Policy makers may often not have considered the implications of population growth of expected magnitudes on the demand for individual sectors or products, e.g.,education, health facilities, housing, or food. Obviously, isolating one individual consequence of population growth in the absence of any analysis of the sectoral interrelationships involved can be misleading, and is conceptually a much less satisfactory way of describing the effects of population growth than its impact on welfare, such as income per head, or the distribution of income. However, insofar as the divergence of view on population policy reflects a failure of policy makers to grasp the magnitudes involved, such partial analysis may be a more graphic way of describing the impact of population growth. This does not require research so much as an educational effort.

But differences in value judgments or communication gaps do not account for all the divergence in views about the impact of population growth on development prospects. Indeed, this is a subject on which there remains considerable confusion among the profession as well as among policy makers, and perhaps this confusion is increasing. On the face of it, the conventional analysis showing population growth to be a brake on the rate of growth of per capita income, formalized by Coale and Hoover (1958), is simple and convincing. Higher fertility is associated with a higher dependency ratio and hence lower saving; faster labor force growth implies less capital per man for any given level of investment; and the fixity of natural resources leads plausibly to a production function showing diminishing returns to increases in both capital and labor.

It is possible to chip away at some of the assumptions. The savings assumptions seem particularly dubious for many families in developing countries. The addition to consumption required by the very young may possibly be small, and children may add to household production at an early age, thereby increasing savings potential.[1] Other considerations may be much more important determinants of household saving--for example, it has often been suggested that the source of income (i.e., whether wages or profits) is significant. Some life-cycle theories of saving suggest that net saving will reflect the ratio of workers to the retired dissavers, and this ratio will be a positive function of population growth. We have relatively little information on the determinants of household saving; quite apart from its importance in analyzing the relation between population and development, the determinants of saving are of considerable importance to several policy questions and research here would seem of high priority.

It is also possible to find advantages in the rapid growth of the labor force--the recent training of young workers is a way to embody technical progress and to make painless adjustment to changing economic conditions. Some economists have seen in the rapid growth of the Western European labor force through migration from Southern Europe, Turkey and North Africa, a powerful engine of growth (Kindleberger, 1967) (though for reasons I find somewhat obscure). But in the conditions of high levels of unemployment and very limited investment per head that prevail in most developing countries, these arguments appear unimportant.

In spite of the qualifications to any simple assumptions about savings, the theoretical reasons for expecting a negative relationship between rates of growth of population and per capita income in developing countries seem fairly robust. As between countries, however, the observed simple correlation between the growth of population and that of both income and income per head during the period since 1950 has not been significantly different from zero. Perhaps the factors determining the relative pace of economic growth are too complex for any single factor to stand out as of particular significance in the process. Perhaps there was some correlation between the rate of income growth and the rate of mortality decline on which data is poor.

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[1] There appears to be very little information on the costs of children to parents. It certainly cannot be automatically assumed these are low. Prof. R. Repetto has pointed out to me that a recent study by Fogel and Engerman has suggested that the break-even point for a slave owner in the United States, raising a slave from birth, came when the slave reached 27 (Fogel and Engerman, 1974), and that in consequence the costs of children to parents must have been significantly greater than the economic return. Repetto concludes from this that in contemporary LDCs with less land per family and lower wages than in the nineteenth century United States, it is even less likely that children can provide a net economic benefit to their parents. The value that research on this topic might have is discussed further below.

The relation between population growth and the rate of development would appear to require further research, but it is not immediately clear what avenues for this are likely to lead to results. The route that some researchers are taking lies in building economic-demographic models. From being simple extensions of the Coale-Hoover framework (e.g., TEMPO I-Enke, 1971), these have now blossomed into much more elaborate and disaggregated constructions (for example, BACHUE [Blandy and Wery, 1973]). Such models can capture the effects of development on population growth, as well as the effects of population growth on development. Without better understanding of the determinants of fertility, it is not of course possible to make confident estimates of some of the relationships involved. But such models do permit an exploration of the sensitivities of outcomes to a range of assumptions about the quantitative dimensions of forces which are at present understood only in terms of their qualitative direction.

For planning purposes, the main value of disaggregated economic-demographic models may be in exploring migration and employment questions over periods from five to ten years. The consequences of population growth for employment opportunities, in restraining the growth of wages, and in perpetuating poverty in small-scale agriculture may well be its most significant development effect. For the normal range of most development plans, the economic effects of fertility change would be felt only in a limited number of sectors. Beyond that period, the relevance of an economic model to the circumstances of a particular country is bound to diminish. Fertility changes today will begin to have significant effect on the labor force only at so far distant a date that it makes little sense to try to predict their full economic impact with any quantitative precision. The promise of the really long-term economic-demographic models does not lie in their ability to describe the future outcomes of today's policy decisions with any particular accuracy so much as to increase understanding of the manner and direction in which demographic forces operate. They are therefore essentially a research and teaching tool rather than for immediate policy use. The same is true of the calculations of the economic costs and benefits of family planning programs. Attempts to try to estimate the economic value of the marginal birth are at best misleading (King, 1973). The best way to derive orders of magnitude of these is from economic-demographic models. It is probably useful for policy makers to calculate such orders of magnitude, in trying to consider whether certain more expensive population policies are worthwhile (e.g., incentive proposals, MCH schemes, etc.). It must be, however, appreciated that no amount of research is going to make these calculations any more than approximate estimates. A large part of the economic benefits of today's family planning programs will be felt in the first decades of the twenty-first century, and there is no way of knowing what the world economy will look like at that point.

(iii) Expected Rates of Technical Progress.

The difficulties of making reasonable forecasts over a long period have also made long-run estimates of the effects of population growth on the adequacy of fixed supplies of natural resources, especially of cultivable land, very controversial. The degree of anxiety which policy makers feel about the consequences of population growth will be considerably influenced by their expectations about adequacy of food supplies in their own countries and the long-run trends in world food prices. The results of research in this field have so far been disappointing. Views held over medium-run prospects--e.g., for the remainder of this century--appear to vary widely, with the predominant view seemingly very influenced by the experience of the preceding two or three years.[1] Views on really long-term prospects--the "carrying capacity" of the earth--have been concerned with the physical possibilities, rather than with the economic or technological changes that would be needed if the long-term potential production of food were to be achieved.

Perhaps the main priorities for economists in this area are: (1) to concentrate their own research on the short- and medium-run, where there are important policy decisions to be made--for example, in agriculture and (2) to explain to policy makers how crude and misleading it can be (a) to make long-term projections without considering the effects of price changes on incentives to produce or to innovate, and (b) to assume that calculations of the maximum possible physical output are any prediction of what will happen in practice.

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[1] I have never tested this hypothesis, but I have a strong impression that the best predictor of the prevailing degree of Malthusianism among experts in this subject would be the preceding Indian monsoon.

(iv) The Effectiveness of Population Policies.

A possible reason for the reluctance to adopt policies to reduce fertility may be a belief that these cannot be effective. Though I know of no instance where such a belief has actually deterred a government from starting a family planning program, such views have probably contributed to a reluctance of finance and planning ministries to provide budgetary resources. A lack of consensus among policy makers as to the effectiveness of existing programs or ways to increase this reflects a similar lack of consensus in the profession. Perhaps one of the most disappointing aspects of the Bucharest Conference was the way in which the general recognition--and the conventional wisdom in the profession for many years--that family planning programs could not reduce fertility to replacement levels on their own without increases in levels of development--seemed to imply to so many that such programs were not valuable at all, which is far from being the case. There has been a fair amount of research of the effect of family planning programs on fertility--enough to show that there has been some effect, though not as much as some early advocates claimed. Possibly more work on this would help to dispute doubts about the possible effectiveness of programs.

How Can Policies Be Made More Effective?

The most important reason for research into the effects of past population policies is not to demonstrate that these can have some impact, but to discover how these might be made more effective. By and large it must be accepted that the tendency of programs either to grow very slowly or to reach a plateau after a short time, is a disappointing one. The large number of induced abortions and some localized successes give reason to believe that programs are now not reaching their full potential.

Two lines of research appear of particular importance. The first of these is into the design and operation of family planning programs themselves. Research into how to make these more effective is clearly of high priority. Having recently attempted it, I feel convinced that the amount that can be learnt from cross-national comparisons based on service statistics is very limited. The required research is going to be in many respects academically rather mundane, such as management studies to see why the results of particular experiments do not seem replicable nationally. Other work must be carried out within the framework of programs themselves, because it requires carefully controlled experiments with means of communications or service delivery. To discuss in depth research priorities of this type would depart too far from the theme of this paper and this meeting, but it is important that this area of research not be neglected.

The second important research area is work on the determinants of fertility. Improved understanding of the economic determinants seems particularly important. In the first place, this may provide evidence of the degree to which conventional family planning programs may accomplish fertility reduction, and the degree to which it is essential to find successful policy measures which go beyond family planning. As noted above, it has sometimes been suggested that large families may be economically advantageous in rural areas of developing countries (Mamdani, 1972) although, as observed above, there is also evidence to the contrary. If large families are economically advantageous in the certain circumstances, presumably programs that merely provide information, or which attempt simply verbal persuasion, will not succeed in inducing parents in such circumstances to have smaller ones. Second, such information may help with the design of policies which go beyond family planning. Most of these involve the use of economic incentives; the more directly these can be designed to offset the forces which promote high levels of fertility, the more successful these are likely to be.

What is the best approach to this? One possibility is to observe actual fertility in a variety of different economic settings. The extent to which this is useful depends on the extent of "unwanted fertility." By instinct, most economists are probably suspicious of this concept. The notion of consumer rationality is very deeply engrained into economic thinking. It is usually assumed that the choices that individuals are observed to make are those that leave them at least as well off as any alternative open to them--though it has to be admitted impulse buying can occur, advertising can shape tastes and consumers frequently regret their choices.

It should be noted that even if the number of unwanted conceptions were thought to be relatively small, there would still be a case for subsidizing family planning programs, since private and social interests in fertility are likely to differ. By reducing costs of fertility control, such as psychic costs associated with traditional methods of contraception and the financial costs of modern methods or induced abortion, such programs could reduce fertility, no matter how rigidly the notion that all children are the conscious rational choice of parents is entertained.

The challenge to any economic theory in this field is to explain the negative correlation between income and fertility, which if not universal, has been observed very widely both within countries and over time. It seems highly improbable that children could be widely considered inferior goods. The response offered to this challenge has been recently surveyed very thoroughly (Leibenstein, 1974, Simon, 1974). In several of the most recent formulations, the allocation of household time is of critical importance; indeed, household decisions could all be analyzed in terms of sequential allocation of two basic elements--time and assets. (Assets at any point of time, of course, include surviving children.) Time can be allocated to earning income, looking after children, enjoying the services of other assets, or enjoying the services of children. More complete models of household behavior would have to emphasize the sequential nature of decisions; the possibly changing influences of social pressures on tastes; the uncertainty attendant on each fertility decision; and the question of whose utility is thought to be maximized--the parents alone or parents plus potential children. It is obvious that complete economic models of household behavior would be extremely complicated, and it is not obvious that the attempt to model all the decisions of the nonexistent representative wholly rational family would be worth the effort. But it is certainly worth pursuing much further than has been done. Models of household behavior which simultaneously determine fertility, employment, and education decisions should give us more information about choices in each of these areas than considering each in isolation.

Most of the recent work in this area, both theoretical and empirical, has been done in a developed country context. Data relating fertility and income are most readily available in such countries but fertility may be more difficult to explain with reference to economic factors in developed than less developed countries. In developed countries, children can be viewed analogously with durable consumer goods (i.e., they provide utility directly to their parents). Demand for children as consumer goods may simply be ascribed to tastes. Alternatively more elaborate theories can be developed to explain the determinants of tastes in terms of such things as social status, parental education, etc. In developing countries, these factors are also likely to operate; however, children are also likely to have some of the characteristics of producer goods (i.e., they provide utility to their parents indirectly, by increasing their income). The demand for children as producer goods may reflect the products of their physical labor, or, especially in conditions of imperfect capital markets, it may reflect their value as insurance in old age.

Insofar as there is unwanted fertility--which there certainly appears to be--deductions made from observed fertility decisions could be inaccurate, especially if, as is probable, the amount of unwanted fertility is correlated with economic circumstances. It would therefore be of particular value to be able to calculate the economic costs and benefits of children to parents in a variety of circumstances in LDCs. There is little or no data that will permit this. Very few surveys of fertility have more than very perfunctory income data; trying to measure what children contribute to their households and what they cost, requires not merely income data but detailed budgets for both consumption and time. Even with specially designed surveys this sort of data is very difficult to get but the effort should be worthwhile. A more detailed knowledge of the ways in which households allocate their resources of assets and time might help to understand not merely decisions about family size, but also the determinants of educational enrollment and drop-out, and of labor supply. Decisions on migration, and on the timing of marriage and the transfer of assets involved in marriage, can perhaps also be brought within such a framework. In addition possible conflicts of interest between children and their parents can be explored; for example, poor response to educational opportunities may sometimes reflect the fact that it may be in a child's interest to be educated (since most studies still suggest a high private rate of return to education in LDCs) but not to his parents.

In my view, the economics of household behavior is the single highest priority for policy-directed social science research on population in developing countries. Individual decisions are what determine the success or failure of population policy. In a number of recent papers, however, several economists have stressed the importance of community or group norms on fertility (Anker, 1974, Leibenstein, 1974), and have suggested the possibility of directing incentives at communities rather than individuals (McNicoll, 1974). The study of community norms falls outside the traditional boundaries of economics, but they are very possibly of considerable economic significance and policy relevance. In this area the economist must recognize the limitations of his discipline and turn to his anthropologist and sociologist colleagues for assistance.

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The Present and Prospective State of Policy Approaches to Fertility

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Introduction

Much of the discussion of fertility policies tends to focus on formal governmental actions and largely ignores the phenomena such policies are directed toward and the complex network of factors that interact to determine fertility levels. A brief review of some of those factors may help to provide a background against which both the potentialities and limitations of fertility policies may be more clearly seen.

Human reproduction is an exceedingly complex phenomenon in which genetic, physiological, psychological, and societal forces are all operative. The basic parameters are biologically established, but they are characterized by a certain looseness or "play" in the patterned processes that permits considerable modification by the concerted and cumulative actions of environmental, individual, and societal influences. We cannot (yet?) alter the menstrual cycle so that ovulation occurs normally once a year rather than once a month, but we can block ovulation temporarily or permanently. And we cannot speed up gestation so as to produce a baby in five months instead of nine, but we can interrupt the process at any point. In short, we can tinker with individuals to alter biologically determined patterns but cannot change the species.

Genetic and physiological factors set conditions that make reproduction both certain and limited. Societal and psychological forces determine to a large extent when and where it will occur. As with biologically determined behavior, there is a good deal of "play" in societal mechanisms for controlling reproductive behavior that permits considerable variability and individual choice. Societies set rules governing sexual access, some of which--like incest taboos--are highly effective controls and other of which--such as proscription of sexual relations outside of marriage--are viewed as less stringent. The family, that universal institution into which most individuals are born and in which they spend much of their lives, is admirably designed to assure that reproduction occurs and that children are cared for during their long period of dependence and are properly prepared for societal membership. Individuals have a choice about when they will have children and how many they will have, but the choices are made in a context of social pressures (and prior social conditioning) that assure a high degree of conformity to group expectations. In many countries, as Judith Blake puts it: "People make their 'voluntary' reproductive choices in an institutional context that severely constrains them not to choose non-marriage, not to choose childlessness, not to choose only one child, and even not to limit themselves solely to two children."[1] The constraints vary with time and culture, but they are always present. The "universal human right" of every couple to choose the timing and the number of children they will have is a noble sentiment, but there is not a country in the world where it is not subject to highly effective societal and cultural constraints. And any policy measures intended to influence fertility will in turn be affected by the extent to which they are compatible or incompatible with the existing complex of shared beliefs, values, and customary practices.

As both a biological and a social phenomenon, human reproduction is affected by influences operating at any of three levels:

- biological--for example, shifts in nutritional status, disease status, general health status; surgical or chemical intervention;
- individual or personal--for example, changes in knowledge; shifts in social, economic, or marital status; acceptance of new beliefs or values; shifts in reference group identification; exposure to rewards or punishments;
- societal--for example, changing family relationships and roles; the development of a "singles culture" as in some Western cities; shifting roles and statuses of women.

The implication for fertility policy of this listing is that changes are harder to implement and less direct and certain in their effects on reproduction as one moves down the list. It is relatively easy to affect reproduction, especially to reduce or prevent it, by tinkering with individual organisms. It is much more difficult to change the attitudes and behaviors of a series of individuals; and it is exceedingly difficult to bring about a predictable change in a societal institution by deliberate and conscious policy measures. Institutions are responsive to policy initiatives, but the responses are usually slow and often different from those anticipated. The dominant and determining agency is the society not the government. Government is but one among many institutional arrangements through which societies regulate their members--and their numbers. What a given government can do about fertility and what effects its policy measures have are substantially shaped by forces that are only partly subject to governmental control.

The complexity of fertility and the degree to which it is supported and promoted by solid social institutions and widely shared values make difficult the devising of adequate strategies for reducing it. If we ask the economists how it is to be done they advise us to change the balance of costs and benefits of children. Reduce the utilities and increase the costs and there will be fewer children born. The sociologists point to the long standing, deeply ingrained, and highly cherished social institutions and values that support fertility and they say that we shall have to change them. The psychologists direct us toward the need to find substitutes for the psychic rewards we get from children and to devise alternative ways of achieving the emotional supports and satisfactions that having and living with children provide. The physicians suggest that the way lies through increasing maternal and child health services, including family planning, and through reducing infant and child mortality and improving nutrition. The politician replies with his ringing declaration of unfettered reproduction as an inalienable human right and ducks both the question and the awareness that the freedom of choice he defends is as mythical as the unicorn. The dedicated and zealous family planner holds that if we but provide widely enough the means of contraception and abortion, they will create their own demand. The biological scientists imply that the means of salvation will be found in improved contraceptive techniques. And, as argued at Bucharest, there are those who think that if the rich quit consuming the poor will stop breeding and that, in the words of the World Population Year slogan, if we take care of the people, population (read fertility) will take care of itself.

Whatever course may be adopted--and there are elements of merit and truth that deserve consideration in all the viewpoints listed above--it will be well to remember that any policy or program intended to affect fertility will have to exercise its influence on reproduction sooner or later through one or another of three variables: sexual intercourse, conception, or gestation and parturition. These "intermediate variables," as they have been called, are the only gateways through which fertility change can be approached. Higher incomes, better education, different social institutions, new roles and statuses for women, modernization, improved health, and the other benefits of economic and social development do not themselves directly alter fertility. Any effect they have can come only through their capacity to change one or more of the intermediate variables.

Nearly twenty years ago Davis and Blake[2] provided a classification of these means of fertility control. Their scheme, in slightly abridged form, is presented here to indicate how narrow the gateways to fertility control are:

Intercourse Variables
(a) Those governing the formation and dissolution of unions in the reproductive period.
    (1) Age of entry into sexual unions.
    (2) Proportion of women never entering sexual unions.
    (3) Amount of reproductive period spent before, after, or between unions.
(b) Those governing the exposure to intercourse within unions.
    (4) Voluntary abstinence.
    (5) Involuntary abstinence.
    (6) Coital frequency (excluding periods of abstinence).
Conception Variables
    (7) Fecundity or infecundity as affected by involuntary causes.
    (8) Use or non-use of contraception.
    (9) Fecundity or infecundity as affected by voluntary causes (sterilization, medical treatments, etc.).
Gestation Variables
    (10) Involuntary pregnancy interruption.
    (11) Voluntary pregnancy interruption.

Intercourse variables under heading (a) would seem to be directly and indirectly amenable to some influence from governmental policies; those under (b) are probably beyond the reach of public policy, although it could be interesting to speculate on the probable effects (if any) of a massive campaign to popularize Sexless Monday or Never on Even Days or a concerted abstinence movement such as Aristophanes described in Lysistrata. Conception variables are highly vulnerable to policy intervention. Gestation variables are perhaps less so but seem to respond differently depending on whether the policy is pro- or anti-pregnancy termination. Policies to inhibit deliberate pregnancy termination through making it illegal seem not to have been effective anywhere in the world, although the evidence on the Rumanian policy shift is not all in; on the other hand policies and programs offering legal abortion have had significant demographic effects in Japan, Eastern Europe, and more recently in parts of the United States and are becoming more widely acceptable. A recent report[3] states that by early this year abortion on request in the first three months of pregnancy had become legally available in 27 countries containing over half the population of the world.

If public policies are to affect fertility they have to do it, directly or indirectly, by changing behavior related to intercourse, conception, or gestation. To lose sight of that fact is to risk investing time and resources in actions that are not likely to have much payoff in terms of fertility change. To keep it in sight means being aware, through theory or empirical evidence, of how any intended policy or program is expected to have an influence on these variables. If income distribution or improved nutrition or any other secondary or tertiary activity is intended to change fertility, those who advocate it should be prepared to describe and document the chain of linked stages by which the end result is expected to be reached.

Fertility Policy: Concepts and Definitions

Any paper about fertility policies should make clear what it includes and excludes in such a term. Like some of the other portmanteau terms in common use--for example, development, quality of life, social justice, human rights--population policy is an imprecise concept that can mean as much or as little as anyone wants it to mean. There is little consensus in the community of scholars concerned with population matters about what is or is not population policy. Many who use the term do not bother to explain what they mean by it; those who do struggle toward a definition fight a losing battle against the complexities of the concept and produce definitions that are apparently too inclusive or too exclusive to have wide appeal among their colleagues and peers.

Assuming that we can agree with Webster that a policy is "a definite course or method of action selected from among alternatives . . . to guide and determine present and future decisions" and that a public or national policy is one adopted by a governmental agency, some questions still remain about what constitutes a population policy. For example:

> Are both a statement of intent and an implementing mechanism necessary? Thailand for several years was offering contraceptive services on a national scale through the Ministry of Health but there was no explicit statement of support for this action or an intention to influence fertility. Did the country have a population policy?
>
> Must there be an explicit intention to change a demographic variable or is any policy action that affects such a variable to be considered a population policy? If a rural development policy, such as the one being implemented in the Pahang River valley in Malaysia, attracts a sizeable group of migrants from other parts of the country, is it a population policy?
>
> Some distinguish two types of population policy--those that are population-influencing and those that are population-responsive. A program to build more classrooms to accommodate growing numbers of students might be an example of the latter. Does it clarify or confuse matters to regard it as a population policy?
>
> Does failure to act or to recognize a condition explicitly constitute a policy? Can a nation with a three per cent annual growth rate but with no statement recognizing growth as a problem and no program to do anything about it be considered as having a pro-natalist policy?

One of the more comprehensive recent attempts to clarify the concept of population policy is that of Clinton[4] who distinguishes between decision and policy, calling policies "standing decisions or decisions intended to guide future decisions and actions," and rules out population-responsive policies as more properly called something else. Clinton would include as population policies only those that deal with one of the substantive areas of demography--fertility, mortality, or migration--and would not exclude those in which the effect was unintended. Thus he would reserve the term population policy for those policies "designed to be or which actually are population-influencing." Clinton's analysis is more thorough than most, but it still leaves a good many matters to be decided by conventional agreement among scholars and it drifts off toward ambiguity in admitting as population policy any governmental action that seems to have an effect, however unintended, unanticipated, and indirect, on any of the demographic variables.

Clinton would use the term population policy to refer only to the actions of governments. Berelson,[5] on the other hand, would include policies of ethnic groups, international bodies, or religious communities if they "intend or effect a non-trivial alteration in events." His major emphasis, however, is on governmental actions, and in his view either intentions or consequences may be used as criteria for inclusion as population policy.

Lowi[6] defines policy as a general statement by some governmental authority defining an intention to influence the behavior of citizens by use of positive and negative sanctions. A policy, as he sees it, must possess the following characteristics: (1) an official expression of intentions concerning desirable or undesirable conduct; (2) a provision for inducements, positive or negative, or both; and (3) some provision of means for implementing the intentions and applying the sanctions (or inducements). Lowi makes the further point that it is impossible to have a government policy without having coercion. Coercion can be remote and indirect, can involve positive or negative sanctions, can be benevolent or malevolent, and can coerce some in order to be of explicit assistance to others; but policy is no less coercive because there are different forms of coercion, or because governments have a choice among types of coercion, among types of people to be coerced, and among the various sanctions to be employed.

Davis[7] views population policy as a deliberate attempt, through governmental or quasi-governmental measures, to change or maintain the rate of population growth. Elements common to all population policies include intent to change or eliminate a particular demographic trend or condition, a presumption that the trend or condition is accurately known, a theory of how the intervention will alter the causes of the trend as well as a theory of how the redirected trend will improve the social and economic situation, and awareness that the consequence sought constitutes a collective goal.

Davis also makes the point that, whatever the demographic goal of a policy, it is always viewed as instrumental to a nondemographic goal. It follows that population policies must be interrelated in significant ways with other public policies as they affect the achievement of a society's aspirations and goals. It also follows, as Lowi notes, that expansion or introduction of new and serious policies aimed at fertility reduction may be at cross purposes with other public policies (which may have population relevance but not with specific intent). That is to say, there is potential political divisiveness that may ensue as a concomitant of any intentional population growth control policies, for the intentional policies may cut across important existing welfare, taxation, and other policies and affect the many and profound interests already tied to those policies.

Selecting from among these and other definitional components and focusing downward from population in general to fertility, we define a fertility reduction policy as one that expresses an explicit intention to induce a change in fertility rates in a downward direction (the desired effect may be achieved directly or indirectly but the intent must be explicit) through governmental measures that are specified and with appropriate resources that are committed, in order to realize one or more societal values or goals.

According to this definition any effort to "solve" a population problem by such means as improving the nutritional status of children, increasing the food supply, or reducing environmental pollution may constitute a policy, but it is not a population policy. A family planning policy may or may not be a fertility reduction policy. It would fall in the latter category if it is explicitly aimed at such changes as improvement of maternal and child health, elimination of illegal abortion, improvement of family well-being, or other non-demographic conditions. This may seem like semantic nit-picking, but given widespread reluctance to face the problems of rapid population growth, the strong and persistent pressures to divert fertility reduction measures into less difficult and more politically and professionally congenial goals--as exemplified by much of the debate at the World Population Year Conference in Bucharest--it is important to understand what we are talking about when we speak about a population policy or a fertility policy. We do not deny that a variety of policies may and indeed do have unintended effects on fertility or that such policies should be adopted or their influences studied. We merely want to emphasize the importance of being certain when a fertility reduction policy is being advocated or supported or adopted that is indeed intended to reduce fertility.

From various definitions and descriptions of population policy, a set of characteristics can be abstracted that illuminate aspects of how such policies are formulated and how they operate. These would include the following:

1. They are public policies, which means that they represent governmental decisions bearing on the allocation of scarce resources for which there is competition.
2. They are national in scope and intent, but implementation may be decentralized and applied differently in different subnational areas.
3. They are broad and general in that they are aimed at large segments of the national population. (The Indian family planning program, for example, is concerned with the 100 or so million married couples.) As Ilchman puts it,[8] they are gross attempts to influence the behavior of large numbers of people through the use of rather limited repertoires of interventions.
4. They provide for some action mechanism, for some way of achieving the desired change.
5. They are macro level in statement and intent, but results have to be obtained through micro level changes in values and behavior.
6. They are always instrumental to some other end. They are means, not ends.

Policy Measures Amenable to Governmental Action--What Can Governments Do?

If fertility is to be brought under rational control--and it is increasingly apparent that sooner or later it will have to be if we wish to avoid having Malthus become an honored prophet--governments are the only agencies with sufficient control over resources and power to organize and lead the effort. But even governments are limited in what they can do, by lack of resources to meet competing and often conflicting claims, by inadequate technology, by lack of information or understanding, by bureaucratic rigidities, by public opinions and expectations, and by their nature as political and administrative institutions.

Governments are not omnipotent. The range of action options available to them is limited. The list can be longer or shorter depending on how general or how specific the category headings are, but the following is probably reasonably complete:

- Governments can pass and enforce laws and administrative regulations.
- They can operate service programs.
- They can manipulate systems of rewards and penalties.
- They can collect and disseminate information to shape public knowledge and opinion and perhaps influence collective values and norms. (They can also try to prevent the flow of information for the same reasons.)
- They can marshal and allocate resources.
- They can engage in international activities, including war.

Each of these has implications for fertility-related behavior and all, with the possible exception of war, have been used by governments in attempts to influence fertility upwards or downwards. War directly affects fertility in several ways but has not been a deliberate instrument of fertility policy. It may be noted that Berelson[9] has compiled and discussed a similar list of what governments can do about population.

Governmental decisions and actions relating to fertility (as to other areas) are taken in the context of political, economic, ideological, and ethical constraints that circumscribe in varying degree (depending on the country and the culture) the range of options available. Not all of the actions in the above list are feasible for adoption by any government at any given time. In assessing prospective policy measures, however, the question of potential effectiveness should be separated from that of their probable feasibility and acceptability, since, as Germain has noted,[10] preoccupation with this question inhibits the movement of potentially effective measures from the unacceptable category to the acceptable.

If the range of acceptable options is to be broadened, a start must be made on assessing the potential effectiveness of a variety of policy measures not now espoused, but which might be demonstrated, through experimentation and research, to be effective under certain conditions. As the reference to Davis[7] indicates, among the elements common to all population policies is a presumption that the demographic trend or condition to be changed or eliminated is accurately known and that there exists a theory of how the intervention will alter the causes of the trend as well as a theory of how the redirected trend will improve the social and economic situation. For such "theories" to be meaningful they will have to be tested in research.

Governmental Actions Regarding Fertility Policy and Development Policy

What governments have done recently in the area of fertility policy, especially fertility reduction policy, is well summarized in a series of Population Council Reports[11, 12, 13, 14] and other publications,[15, 3] and will not be reviewed here. The most common type of policy, as might be expected, is family planning, although not all countries offering family planning services regard them as components of a fertility reduction policy. Population education programs, when specifically aimed at inculcating norms about responsible parenthood and small family size, may be regarded as indirect attempts toward implementing a policy of fertility reduction. Such programs have recently become popular with a number of governments; like family planning programs, they are generally high, in Berelson's terms, in political viability and ethical acceptability. The list of other policy-based efforts is short: vasectomy camps in India, the educational bond scheme in Taiwan, the incentive-disincentive program in Singapore, the slow spread of permissive abortion legislation, the late marriage policy in China.

The number and variety of governments that have espoused family planning programs, even though not always as a population policy measure, is of course in itself a dramatic and significant phenomenon. But Stamper's[12] survey of population policy in development planning showed that only 18 out of 70 developing countries included in the study supported, in their development plans, policies and programs to reduce fertility. (Additional countries moved into this category after the study was done.) Of these 18, some actually have programs to reduce fertility, others have merely recommended such programs, and only a few have included measures other than family planning.

One approach to the problem of excessive fertility that has enjoyed substantial popularity is the notion that the employment of policy measures to promote economic and social development and modernization will surely bring in their wake fertility decline. In short, it is argued, development policy is fertility policy. As Demeny[16] has put it:

> One version of this position advocates exclusive concentration on development policy as narrowly defined, that is without any direct attention to fertility effects as such. It is simply assumed, although the assumption often is only implicit, that correct development policies will also lead

> to fertility behavior that is just right for the society in question. Alternatively, it is assumed that the task of society is to adjust to whatever level of demographic behavior development policies generate. In either case, fertility as such is not a policy variable.

In effect, acceptance of this position does away with the need for governments to adopt measures directed toward the fertility problem. A more sophisticated version of this position maintains that the "right mix" in development policies, which would include the goal of more equitable distribution of income as well as other components of social and economic well-being, would produce a major impact on fertility decline, but calls also for fertility reduction policies, including family planning, as they have been defined here.[17, 18] Demeny[16] contends, however:

> Development plans represent a series of compromises between feasible degrees of satisfying a variety of desires. The introduction of fertility policy into development planning begins when the mix of development policies that is considered best without regard (italics in original) to fertility effects is actually modified because of an intended extra fertility impact. . . . Given the existing state of the art of development planning and given the inadequate conceptual framework for analyzing population problems, it is, in fact, doubtful whether arguments based on fertility effects of development policies are ever strong enough appreciably to modify the mix of development measures that planners would otherwise propose.

Actually, evidence has been produced by Coale, Demeny, and others that fertility decline has taken place under a wide range of social and economic conditions. Allan Sweezy,[19] considering the history of fertility decline in southern and eastern Europe, reinforces this evidence: "Sharp and sustained fertility declines have occurred in countries that were poor, predominantly agricultural, relatively uneducated, and still suffering from high mortality. If they have occurred before there is nothing, at least in these conditions, to keep them from occurring again elsewhere."

Development policies are, of course, aimed at highly valued goals in their own right, but they are not necessarily fertility policies. They may indeed ultimately affect fertility, but the relationship can hardly be regarded as a simple one-way affair or the outcome as inevitable. Sustained high fertility rates can clearly constitute impediments to the consummation of development goals. Consequently, the implementation of policies deliberately aimed at achieving sustained fertility decline can be seen as a necessary if not sufficient condition of progress in development, just as progress in development may contribute to fertility reduction. As Teitelbaum[20] has said, ". . . more than a decade of experience is available to document the proposition that programs directed to economic development and to population growth are mutually supportive; there is no empirical warrant for the 'either/or' type of argument." If sustained fertility decline is to be achieved in the developing world, it will be brought about not only by effective development programs and improved family planning programs, but by the search for and implementation of viable population policies that can serve as effective complements to existing programs. No one set of policies will serve for all countries, of course; each government will have to develop its own, although they may learn from one another, based on what can be effective in the national setting and ultimately on what can become acceptable. This, in turn, will require policy analysis and research appropriate to that setting.

It quickly becomes apparent, in reviewing what governments have done to reduce fertility, that no government is doing all it could. The proportion of national budgets expended for fertility reduction is very small; the number of approaches being followed is limited; there is little or no research into the possible unintended effects on fertility of other kinds of policy actions and less concern with how these effects might be limited or enhanced. Everywhere, for example, virtually all births occur within marriage or in stable unions that have most of the characteristics of marriage except legal endorsement. But very few countries have tried to design marriage policies that might operate to minimize the large, but not always intended, pronatalist influence of that institution.

A serious anti-natalist program would seem logically to require policy actions affecting three areas:

- Measures to delay entrance into marriage and to keep as low as possible the proportion of women married. On the assumption that women are not likely to have many children outside of marriage, a variety of measures could be adopted to make entrance into marriage more difficult and to develop satisfying alternatives for at least a part of the reproductive period. Such measures might include laws raising and enforcing the age at which marriage could be entered; measures to make entrance into marriage more difficult--e.g., high license fees graduated perhaps by age with extremely high fees for the young tapering downward with age; compulsory waiting periods after obtaining a license; pre-marital means tests; compulsory pre-marital examinations on population and contraceptive knowledge; easier divorce (if accompanied by satisfactory arrangements for caring for children); two-tier marriages--one type for companionship, one type for reproduction; special welfare and employment services for widows and divorcees in their reproductive age period; special emphasis on jobs for single women; educational programs for teen-age girls; single-sex youth camps or corps; a year or two of compulsory national service for both sexes between the ages of, say, 18 to 20.

- Measures to induce people to want to have small families. These might include a variety of informational and educational programs; economic incentives and disincentives including differential taxes; transfer of more child raising costs to parents and to local communities; social security provisions for the elderly; mobilization and use of civil administration officials; community forums; community incentives; mobilizing of community opinion in favor of small families.

- Measures to help those who want to avoid a pregnancy or a birth to do so. The measures here are familiar, but could be expanded and strengthened almost anywhere: family planning programs; subsidized contraceptives and services; commercial advertising and distribution of contraceptives; free elective sterilization for both males and females; legal abortion and free abortion services.

The items on the above lists are illustrative, and not all that are on the lists are politically or economically or ethically feasible in all countries. But situations are changing and governments are finding that they can do things which a few years ago they felt they could not do. The importance of the lists is not in the specific measures mentioned but in their indications (1) that a greater variety of approaches is possible and desirable, and (2) that any measures intended to affect fertility will be successful only to the extent that they operate through one or another or some combination of the three areas listed: exposure to the risk of pregnancy, motivation and acceptance of responsibility for fertility limitation, and prevention of conception or birth.

An area of critically needed research is that which could demonstrate the anticipated or actual relationship between any given fertility policy component and any of these intermediate variables. Especially useful would be studies that would enable policy makers to have estimates of the likely and maximum effect that might be expected from any contemplated policy action at a given level of input along with estimates of what the political and economic costs are likely to be. This would not be easy research, and given the great number of uncontrollable factors that influence fertility in one way or another, perhaps no very accurate estimates are possible at reasonable costs. But it should be possible and feasible to make some estimates of the maximum result that could occur under the most favorable conditions. What difference would it make, for example, if 10 percent of the women between say 18 and 43 were not married at any given time? What would be the effect on fertility if the average age at marriage could be increased by two years? How much, if at all, would fertility be affected if most of the costs of education were transferred to local communities? Even ballpark estimates would be useful.

Many development policies can be expected to have consequences for fertility, but the developing countries cannot depend solely on their development efforts to bring down fertility rates even if "development" were to proceed at an optimal pace (itself a problematic assumption). The desired demographic effects of population policies themselves have a long lag-time before they appear because of the momentum already present that guarantees major population increase no matter what action is taken now, but the eventual size of LDC populations will be determined by the date at which fertility declines to the low levels characteristic of the developed countries. There is need, therefore, to identify and assess the range of alternative population policy options that could be adopted and implemented by governments now, in addition to family planning, both to cope with the consequences of the future population growth that will be upon us, as well as to slow down that growth as soon as possible. The remainder of this discussion offers some thoughts on what might be done to address this latter task.

Policy Analysis

Concern with the problem of how to reach policy makers with the findings of social research, or how to close the gap between producer and consumer so that research findings are understood and used, has been expressed repeatedly in the population literature. It is a concern that is hardly unique to the population field. A recent study by Nathan Caplan[21] indicates that of the billions of dollars spent annually by the U.S. Government on scientific research and development, relatively little of the information gathered has any impact on the decisions of key policy makers. Caplan reports that ". . . government officials don't need to be sold on the usefulness of scientific information . . . but . . . often lack the skills and proper orientation to put scientific knowledge to good use."

In the developing world, it is not just a question of how to put to use knowledge about the consequences of population growth but the appreciation by policy makers (read to include planners) of the need for such knowledge that is largely lacking as well. More urgent than the concern for the use of research, as important as this is, should be the concern for convincing government leaders of the critical inportance of the consequences of population growth and enhancing their receptivity to exploration of a range of policy options for reduction of population growth. Conviction and motivation on the part of leaders are necessary conditions for serious consideration of the range of alternative policy options that could be developed by analysis and research from which leaders could choose and support policies for implementation. Presumably, and it is a presumption that may be questionable but must be regarded as reasonable, most leaders are genuinely concerned with promoting the economic and social development of their countries. If so, it should be possible to gain their conviction and motivation by empirical documentation of the effects of population dynamics on development goals and by the development of evidence of relationships between particular policy measures and their probable consequences for effective fertility reduction, provided that an effective means of communicating this evidence is available.

The World Population Conference and its aftermath may help to sensitize world leaders to the consequences of future population growth and to mobilize their support for adoption of new policies, but the empirical demonstration, in terms that policy makers can work with, of "alternative approaches . . . specifying potential differences in the intention, effect, and cost of various programs"[22] is the task of policy analysis and research; it cannot be accomplished by conferences. The task is at least threefold: (1) to demonstrate the impact of population growth on development goals; (2) to assess the population effects, explicit and implicit, of current and proposed development policies and programs; and (3) to identify, design and test the potential effectiveness and feasibility (leaving for subsequent consideration the question of acceptability) of alternative policy options which can facilitate the realization of development goals aimed at the enhancement of both national and individual well-being. There is need for analysis not only of the effects and costs of taking alternative actions but of the effects and costs of not taking them. As Davis[7] has said, "Once the question of the consequences of population change is seriously raised, a failure to take any action is itself a population policy," and thus becomes a proper object for policy analysis and research.

This is a formidable task, beset with many conceptual and methodological complexities, which clearly will require long-term research efforts on many fronts, involving all of the relevant social science disciplines. To build the necessary data base will require employment of all the tools available to social-science research--econometrics and mathematics, large-scale surveys, social experiments and evaluated demonstrations, longitudinal and cross-cultural studies, and so on. But while this is being undertaken, there still remains with us the acute need (1) to bring to the policy maker an understanding of what is already known that is of policy relevance, (2) to engage policy makers and researchers in a common perspective with regard to identification of the key questions that are researchable and need to be answered, and (3) to provide the policy maker with continuing consultation, based on the best available knowledge, of what options may be open to him, together with their anticipated effects, as he engages in the decision-making process.

An increasing number of social scientists, both in the developed and developing worlds, are undertaking research on problems relevant to population policy, but their contacts with policy makers, with some exceptions, are likely to be sporadic and of limited duration; they are not in a position to respond appropriately or adequately to the array of needs indicated. There is a place here for the "policy analyst," who can play a pivotal role in performing these necessary functions. Variations of this theme have been proposed in a number of writings, including those of Saunders and Hardee,[23] C. Stephen Baldwin,[24] and, in a more limited context, Hans C. Blaise.[25] It is not suggested here that a new professional role of "communicator" or "interlocutor" be created in the person of the policy analyst, but that he be a social scientist, preferably a senior person who has engaged in policy research and has the authority and knowledge to cope with the policy maker's questions and needs.

(We are using the term "policy analyst" here to designate a particular role-set vis-à-vis policy makers, but in fact policy analysis is an integral part of policy research, and the policy analyst is indeed a policy researcher who would take on the special role of change agent for policy makers. And by "policy maker" we mean government officials who are senior staff in national planning offices and in ministries and responsible for public policy intervention relevant to population growth.)

The policy analyst, if he is to respond effectively to the needs indicated above, will have to learn how the world looks to policy makers and to take into account their perceptions and values, as well as to be critical of their assumptions if they are at odds with demographic realities. (Dr. Samuel Darling, the malariologist who worked on the Panama Canal project, is reported to have said, "If you wish to control mosquitoes, you must learn to think like a mosquito." Similarly, if you wish to influence policy makers, you must learn to think like them.) And given the urgency of population issues, the policy analyst will frequently have to make assessments of alternatives and recommendations for action without waiting on full documentation or ultimate "proof" from research findings. He must of course base his decisions on the best available knowledge, but he has to bridge the gap between the deficiencies of scientific findings and the fact that policy will be made or unmade regardless of the deficiencies. As Etzioni[22] has put it, ". . . the policy maker is likely to make a decision anyhow, and he probably will make it less well if the policy researcher has not shared whatever data and analyses are available, of course highlighting their limitations." Or as James Coleman[26] had said: "Partial information available at the time an action must be taken is better than complete information after that time."

If the policy analyst and his associates are to make effective contributions along the lines suggested above, they will have to be located as close as possible to where the action is in a government's policy-making apparatus. More important than the actual physical location is necessary support from and access to policy makers. In some countries the indicated location may be a national planning office, as in Thailand and Malaysia, or it may be national planning commissions or particular ministries, depending on where the critical decision-making power lies. In any case, to quote Etzioni[22] once again, policy analysis or research should be conducted in "units that are close to the policy makers (attentive to their problems and aware of their constraints) but at the same time sufficiently independent to allow critical analyses."

Policy Research

A characterization of social research oriented to population policy formation derives in large part from the discussion in the previous section. Like any other policy research, it should be concerned with mapping alternative approaches and with specifying potential differences in the intention, effect, and cost of various programs; at the same time, it must respond to the accepted canons of scientific endeavor. Policy research is to policy analysis (as described for present purposes) as basic research is to policy research. The policy analyst would bring to his work with policy makers the data base and relevant insights generated by the efforts of policy research, just as policy research benefits from the accomplishments of basic research in the social sciences. Etzioni[22] puts it well: "While basic research aims chiefly to uncover truth, policy research seeks to aid in the solution of fundamental problems and in the advancement of major programs."

As indicated above, population policy research needs to focus on existing policies and programs to assess their fertility effects as well as on the generation of new knowledge that can facilitate the identification of additional fertility policy options and the assessment of their potential effectiveness. Central to the conduct of policy research is the principle of the relative malleability of the variables under consideration in the sense that some variables are subject to policy manipulation while others are not. Policy research, if it is to have utility for both researchers and policy makers, must focus on those variables which are more moveable (or potentially moveable if situations were to alter), such as perceptions, attitudes, and certain kinds of behavior, rather than on those which are difficult or virtually impossible to change, such as sex, age, educational status, or ethnicity.

To engage here in setting priorities for population policy research would be inconsistent (if not foolhardy) with the stance taken earlier in this discussion, namely, that each country will have to develop its own set of viable policies based on policy analysis and research appropriate to that setting, and that policy makers and researchers will have to develop a common perspective in the identification of the key questions that are researchable and need to be answered. But it may be pointed out that whatever priorities are set for research, where the regulation of fertility is of prime concern the research will have to focus on determinants that are centrally relevant to the effective long-term regulation of fertility and, within this broad area, as Fawcett[27] has stated, on "mutable determinants," that is, those social-situational, cultural, and psychological factors which can be identified as susceptible to change through policies and their implementation. Examples of such determinants are to be found in the various lists of "beyond family planning" proposals that have appeared in the literature--lifting pro-natalist coercions, effects of incentives-disincentives, providing genuinely alternative career roles for women, changing normative preferences for number and sex of children, shifting age at marriage, changing the perceived balance of satisfactions and costs of having children, and so on. Most of these have yet to be subjected to systematic research and experimentation in a variety of different cultural, social, and political settings to ascertain their potential effectiveness and feasibility in reduction of fertility and to document the causal relationships involved. It is not at all clear, of course, whether or not some of these proposals may involve variables that are relatively more or less "mutable," but there is no better way of finding out than by subjecting them to research. One alternative, where research is not immediately possible, is imaginative speculation which could lead to empirical testing, but failing this the only other alternative is doing nothing about them at all, in which case they will certainly wither away as possible options. In any case, the research, where it is attempted, must explicitly focus on fertility effects as the dependent variable.

That the definition and implementation of research priorities is in the first instance a task that should be undertaken at individual country levels by local researchers in conjunction with their own policy makers should not obscure the fact that relevant literature and experience developed elsewhere may be helpful to them in their own endeavors, and that provision for comparative studies with researchers in other countries can only be advantageous. Such studies provide a kind of perspective, to be gained from comprehensive examination of the range of experience and policy options, in a series of countries, that can undoubtedly facilitate making better decisions on such issues in one's own country. There are at least two major program efforts now going forward in the developing world to develop multidisciplinary comparative research, each with its own set of regional priorities, focused on population policy issues. One is the consortium of social science research centers in Latin America coordinated by the Latin American Demographic Center (CELADE), the other the recently established group of social scientists in East and Southeast Asia, based at the Korean Institute for Research in the Behavioral Sciences (KIRBS).

Conclusion

This discussion has been primarily concerned with the development of capability in research and analysis that will help to provide an appropriate and effective knowledge base, one that can be shared with policy makers, for the formulation of policy approaches to fertility. Policy approaches to population distribution and to the consequences of rapid population growth are, of course, equally important, but are outside the scope of this paper. There is, nevertheless, a critical need for long-term planning and concomitant research to provide the infrastructure, to guide the distribution of population, and to find viable patterns of settlement and use of land and labor for national populations on their way to doubling their size and for urban populations which may grow to five times their present size. In the present context, it may be noted that systematic efforts to identify what social, cultural, and economic situations will look like several decades from now would also enhance the determination of planners and policy makers to help reduce fertility as rapidly as possible.

As already noted, the task that confronts policy analysis and research is complex and formidable. It calls ultimately for the systematic assessment of the effects of present and prospective policy measures on actual demographic behavior in ways that can be directly useful for policy formation. Social science research to date on the relevant variables is quite uneven and far from definitive.[28] This is hardly surprising, considering that much of the research has been atheoretical and essentially descriptive. It is encouraging to note, however, that increasing entry into the population policy field, both in the developed and developing world, of professionals from the disciplines of political science, psychology, and anthropology, which come more lately to the field than those from demography, economics, and sociology, should serve to broaden in innovative directions the range of policy issues and options which merit study by the social sciences and to generate increasing sophistication in the concepts and methods employed in policy research.

It is important to keep in mind that explicit concern with policy analysis and research in general as an area of social science concern is itself a relatively recent phenomenon. The several social sciences have been primarily concerned with their own needs for disciplinary development, which is perhaps as it should be, and the conceptual frames and methods they have acquired in the process do not lend themselves easily to work on the problems posed by the assessment of present and prospective public policies. In reviewing the case for policy research, James Q. Wilson writes:[29]

> If this is the case, on what grounds can anyone defend such policy-evaluating social science as exists? In part, because some studies do provide answers, even when judged by the most rigorous standards . . . But in large part social science evaluations, and the debates over them, are useful because they expose the complexities of a problematical situation, extend the range of possible explanations for those conditions, increase our awareness of the unintended as well as intended outcomes of any policy intervention, and stimulate us to reflect on the inadequacies of our own preconceptions about the matter.

The Third Bellagio Conference on Population, which brought together high-level representatives from all of the major donor agencies concerned with the field, affirmed an overwhelming consensus among the participants about the need for rapidly increasing the amount and pertinence of social research to underpin population policies.[30] This consensus strikes all the right notes with respect to expanding the supply of social scientists in the developing countries and assuring them of career opportunities in policy-oriented research, to use fully and wisely the growing social science capability in the developing countries, and to provide adequate support for the building of institutions and of international networks based on indigenous initiatives and momentum. The principal point of the present discussion, however, is that for all of this effort to make a pivotal impact on social science contributions to policy formation will require a linkage between policy makers and policy researchers that can be implemented by what has been described here as policy analysis. On the one hand, in working with policy makers the policy analyst can insure understanding and use of the products of policy research, and, on the other, in working with policy researchers in the universities and possibly in international consortia he can help to focus and sharpen their response to critical policy needs and issues and to translate academic research into policy terms.

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Some Thoughts on Organizational Models for Population Policy Research

by

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October, 1974

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In his remarks at the Third Bellagio Conference on Population, Oscar Harkavy drew upon Bernard Berelson's work to fashion a definition of population policy research. As he stated it, the "study of population policy encompasses the interrelations of four population variables--size, rates, distribution, and composition--and four broad institutional or behavioral categories--economic, political, ecological, and social." An earlier conference of representatives of twenty Asian universities on the role of the university relative to population policy, held under the auspices of the East-West Center, in 1972, concluded with a very similar view of population policy research. This conception seems to exclude very little from the purview of population research. Nor does it seem to add anything new in principle. What is new in the currency given the term, as I see it, is the intent to focus population research directly on policy issues in the hope that the probability of research findings being used will be substantially increased.

It is worth noting that demographers since early in the history of their discipline have devoted most of their attention to problems of practical concern. Indeed, it is difficult to imagine a population research problem that is not more or less directly relevant to some issue of public interest. Add to this the fact that population researchers have been and continue to be exceedingly diligent and we have the vast amount of published research product that now crowds library shelves. One could

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read eight hours a day for many months without exhausting the supply of research literature. We even have to have specialized librarians to keep track of it all.

Whether any of that huge accumulation has found its way into policy deliberations is an open question. The pessimistic view is that none has. Policy making is essentially an interplay of various political and economic interests in which it seems that knowledge is seldom consulted. We have yet to hear of any official recognition given in the United States to the excellent Report of the Commission on Population Growth and the American Future, to say nothing of the six volumes of research papers on which the Report is based. That may prove to be only the most recent of many commission reports on social issues to fade into oblivion. But then the pathway from the researcher's desk to the theater of application does not have to be a highly visible one. The optimist might well argue that knowledge seeps into the thinking of leaders and policy makers through devious and undetected routes. If so, it would be useful to know how it happens. For the putting of knowledge into use is fully as important as creating it in the first place.

There are several reasons why one might expect to encounter a neglect of policy research findings. One of these is that policy makers do not as a rule read research literature. Theirs is a different universe of discourse, one in which the language of the research scholar is a foreign tongue. Indifference sometimes gives way to hostility to social science research in general, for it always carries a threat of criticism in areas in which policy makers regard themselves as experts. Almost equally irritating to the policy maker is the fact that research usually comes after policy commitment has been made. One can imagine the consternation and embarrassment resulting from a definitive finding that national family planning programs have no effect on birth rate trends.

A second obstacle, closely related to the first, is a failure of translation. Research does not speak for itself to the uninitiated. Nor are researchers noted for their ability, or for their eagerness, to explain the practical value of their work. Yet if that is not done the relation between production and consumption of knowledge is a gap without a bridge. What is needed is a mechanism for systematically translating the conclusions of research into usable terms at the policy making level. That might be done through a recurring dialogue between research and policy maker, or more economically through the offices of a skilled translator who keeps in touch with both the scientific and the political communities. In fact, a very special skill is required to reconcile two very different modes of thinking. On the one hand, the policy maker is inclined to want from the demographer simple and categorical answers to complex issues. The demographer, on the other hand, arrives at conclusions cast in terms of probabilities based on assumptions about circumstances that often lie outside his range of competence. It is no mean task to demonstrate how the "impractical" work of the demographer serves the "unrealistic" expectations of the policy maker.

The translation problem exists partly because much demographic research, though policy related, is either designed to test a rather general model or it is executed in a cultural context alien to the one in which an application of results might be contemplated. In both instances the question of goodness of fit to any particular or any different country is moot. This raises the broader issue concerning the exportability of social science concepts and research findings. Most of us can think of one or more miscarriages of common sense in that connection. In the present state of knowledge it would seem that research addressed to a hypothetical question or performed in a setting foreign to the location of the policy problem can only be accepted in a particular place as suggestive. Its relevance needs to be ascertained through replication. In summary, a third and, in my judgment, most important obstacle to the uses of demographic research knowledge lies in the fact that the research is not country-specific.

Thus it seems that a first requisite for the cultivation of population policy research is that it be oriented in large part directly to the problems of the country in which influences on policy are anticipated. This should apply especially to countries which, possessing no research tradition, are lacking an accumulation of dependable self-knowledge. Research within the country should not exclude comparative studies of population phenomena in countries within the region. Such studies provide useful analogies as well as measures of the relative importance of cultural and institutional differences.

The two objectives--encouraging the conduct of population policy research and facilitating the application of its findings in the policy making process--pose something of a dilemma. Although complementary in principle, they are often contrary in practice. This becomes most apparent when the question of where to locate a research capability in the institutional structure of a country is taken under consideration.

The nature of the objectives would seem to argue for the assignment of research responsibility to one or more ministries of government or to departments within ministries. That should assure a close working relationship between researcher and administrator or policy maker such that each would gain a clear understanding of the work of the other. Consequently research could be designed to investigate specific policy issues and the results of investigations would pass immediately into the thoughts and actions of planners and policy makers. Conceivably, too, research tasks could be scheduled to serve the policy makers' needs as they arise. It is also probable that a government ministry would be able to assemble and maintain the research services required, including clerical assistance, computer programmers, access to machine time for data processing, and resources for the carrying out of field surveys.

But experience with researchers and with the work they do would sooner or later reveal that the location in an established government office imposes conditions that are less than, and often far less than, optimal. A subtle but nevertheless important condition essential to high quality work and to the retention of competent researchers is an intellectual climate in which research is understood and valued for its theoretical as well as for its problem solving contributions. A researcher uninterested in the theoretical implications of his work will overlook much that might be innovative of new approaches and will seldom rise above a pedestrian level. But it is unlikely that a suitable environment can be sustained for long where priority must be given to a variety of day-to-day administrative tasks. In a setting of that kind research tends to be accorded a secondary priority; it is apt to be the last function to receive increased budget allocations and the first to suffer budget reductions.

It is also unlikely that a governmental office can grant the researcher the degree of intellectual freedom which is conducive to the best work. It cannot, for example, give him more than a small degree of independence in the choice of problems on which to work. He must attend to the needs of the organization first and use what time remains for the pursuit of problems of interest to him. Furthermore, an administrative office is inclined to be impatient with the inability of researchers to produce according to a fixed time schedule. Unless one has had such experience he is not likely to appreciate that the pursuit of knowledge moves by fits and starts, that it encounters cul-de-sacs and failures on its way to success. If measured in terms of product per hour during any given day, week or month, research impresses the practical man as woefully inefficient. Yet when a research report is completed it is often the administrative officer whose name appears as author. For was not the research done under his administration and with the resources he made available? The failure to give the creative worker full recognition for his product discourages initiative and leads to a deterioration of quality of work. On the other hand, the researcher who has displayed a superior intelligence is very likely to be promoted to an administrative position, leaving the research task to less qualified persons.

The obvious alternative to the governmental office is the university. With its concentration of scholars and its dedication to the pursuit and propagation of knowledge the university should be able to offer the most hospitable of all environments for the conduct of research. That is not always the case, however. If the university administration is staffed with political appointees or intellectual failures recruited from its teaching staff, there may be no tangible encouragement or rewards for productive scholarship. A favorable environment does not exist in a university _ipso_ _facto_: it must be cultivated and protected from erosive influences. There must be a system of recruiting promising researchers and of rewarding them for their contributions, an adjustment of teaching assignments to allow time for research, and the provision of services and equipment required by the researcher. Of course, if these circumstances are not present, the explanation may lie as much with a lethargic faculty as with an indifferent administration.

Where the research environment on a university campus is favorable there are usually other supportive conditions. Individuals are free to choose their problems and to work at a leisurely pace. They can also expect to receive full recognition for their research output, though sometimes publication opportunities are too limited. The research scholar in a university, moreover, has almost continuously at hand a sympathetic forum composed of colleagues and students in which to present and defend his ideas.

But the advantages of a university location for research in general may operate as disadvantages for policy research. The multiple obligations of a member of a teaching faculty militate against the meeting of close or rigid deadlines for for the conclusion of projects. Furthermore, the university researcher tends to be somewhat isolated from policy makers. To that extent the problems of translation mentioned earlier may be serious. One might expect this insularity to be least in countries where the professional community is rather small. It occurs even there, nevertheless.

I doubt that there is a single model organization for population policy research that would fit neatly into the administrative structure of every country. I doubt, too, that there is a type of organization in which all conditions are optimal. Perhaps the nearest approximation to an organizational paragon is a government supported research institute, situated on a university campus and under the general administration of the university, but with a large degree of autonomy particularly in personnel selection and research program determination. The specialized research institute would remove research from an ambiguous position in government offices. It would also make possible the concentration of researchers in something approaching a critical mass, instead of their being dispersed widely in many scattered offices. The opportunity for mutual stimulation and collaborative effort would maximize individual productivity. Furthermore, with a sufficient number of researchers an institute could maintain a diversified program, mixing the immediately applicable with more generalized projects. Individuals could thus vary their assignments from time to time. A relatively large volume of continuous activity could also make efficient use of the necessary support services.

A campus location would be important to the welfare of a research institute. It would afford both institute and university personnel, students as well as faculty, easy access to one another. In addition to informal conversations that might be expected to occur, various formal collaborations could be conveniently arranged. Institute personnel could participate in seminars and student research direction, and faculty could join in institute research projects. The teaching services of the institute could also be extended to the offering of research internships and to the sharing of materials for theses and dissertations. An institute, in short, could be a valuable leavening agent in the intellectual life of a university while benefitting from access to the scholarly resources of the institution. Much would depend, however, on the wisdom and skill of the institute administrator. If he were to allow any invidious distinctions to arise or to create any unwarranted barriers to communications the locational advantages would soon disappear.

The discussion to this point has dealt with an institute devoted specifically to population policy research. Too narrow a specialization, however, could be counter-productive. If specialization were to result in loss of contact with the social science disciplines, the research program would be seriously impaired. The most important population problems of today are not demographic in the formal sense of the term. They are problems rather that are deeply rooted in the social and economic structure of each society and of the international community in which it is involved. Hence the population researcher needs to be able to draw expertly upon the theories and insights of one or more social science disciplines. This, I assume, is what Harkavy and Berelson had in mind in their broadly conceived notion of population policy research. It would seem advisable, then, for an institute to build a versatile capability into its program and organization. A close university relationship should help it to do that.

A university location would require, of course, that very studied efforts be made to maintain contact with policy makers and the issues confronting them. It would be useful in that connection to include two or three government representatives on the institute's administrative board. But if the representatives were to be effective in liaison between researchers and policy makers they would need to be individuals of high intelligence and intimate acquaintance with the idiosyncrasies of both parties. But government representation on an administrative board is not enough. The institute administrator and his colleagues would have to systematically cultivate relationships with policy makers, make use of technical advisory committees, invest a large effort in communicating research results to the consumers, and above all produce highly pertinent research products. There is also a difficult educational task to be served. Policy makers must learn that though research results may not be conclusive they may still be useful. They must come to appreciate the limitations of knowledge without losing respect for the process by which it is created. Failure on this score often leads to a termination of the relationship between researcher and policy maker.

The position in this paper is that each country should have an adequate research capability and should through that means carry on a country specific program of research. Without that there is no assurance that the policy needs of the country will be given the attention needed. It is possible, however, that adequately trained people are so few that they cannot provide the man-hours needed to satisfy the information requirements of the respective country. In that event an expedient might have to be sought in a multi-country of regional research organization. Such an arrangement could work well enough on cross-national problems. But it could only give occasional attention to particular country problems. The model of the highly successful international agricultural research center, it seems to me, has a limited utility in the fields of social science concerns. The agricultural researcher can move soil samples to distant laboratories and can experimentally reproduce climatic conditions to match the soils. That is not so feasible with social and cultural materials. Such variables must be observed to operate in the space-time contexts in which they exist. Thus I regard an international population research center as a supplement to rather than as a substitute for country located research centers.

Of course, the assumption that importance is attached to population policy research in every country is gratuitous. The full import of population, in the Harkavy-Berelson sense, is not universally appreciated. Most economists in developing countries, particularly those of the older generation, think of population, when they think of it at all, merely as labor supply and as a consumer function. In other quarters, population is commonly seen as simply a health problem to be solved by a family planning program. The over-sell of family planning, where it has not blinded people to the broad ramifications of population variables, has tended to discourage a serious consideration of the effects on institutions of rates of population change and of currents of movement. So the promotion of policy research may have to contend first with an apathetic, a misguided, or even a hostile attitude toward population analysis before the question of how most effectively to organize for its conduct can be entertained.

Strategy for International Agencies:
Questions for Discussion

by

Oscar Harkavy
The Ford Foundation

October, 1974

Strategies for International Agencies: Questions for Discussion

by

Oscar Harkavy
The Ford Foundation

This paper reviews some of the major elements of a strategy for improving social science research related to population policy and seeks to identify questions for consideration at this Conference. It is intended to provoke discussion rather than to present conclusions, since it was written prior to receipt of more than a handful of participants' memoranda and background papers. The following topics are considered:

1. Relative priorities for social science research
2. "The development research system"
3. Need for improved data
4. Needed research
5. Research by whom?
6. Strengthening capacity for research in developing countries
    (a) Training
    (b) Institutional development
7. Networks
8. Competitions
9. Links to policy making
10. Donor collaboration

It is expected that many of the "questions for discussion" contained in this paper will have been considered during the first day of this conference and that the present session will concentrate on those issues to which further attention should be given.

Budgetary Distributions: Percentage[a]

Area	UNFPA	IBRD	USAID	SIDA	IPPF	FF	RF	PC
Basic population data	(approx.) 12		8			.2		
Population policy issues (includes population dynamics, population policy, population education)	11		9		10	7.7	15	
Family planning delivery systems	46	49	50	29	70	4.5	3	25
Biomedical affairs	5		11	28	3	44.1 basic 6.1 applied	34	30
Training facilities and resources	22	20	15	42	26	33.8	(to Population Council) 45	34
Other	5	30 contingencies	7		1	3.6		5
Total ($ million)	26.5	19.5[b]	91[c]	13-15	26.1[d]	14.7	6.8	17.0

[a] Rounding of percentages by area prevents all adding precisely to 100%.

[b] Although bank group finance is usually heavily weighted toward "hardware" items, the bank's primary interest lies in strengthening population programs and institutions ("software activities"). Project agreements normally include provisions on the latter, even where no bank financing may be involved.

[c] Contribution to UNFPA--$29 million not included above.
AID/Washington costs--$3.3 million not included above.
Total USAID obligation FY/72--$123.3 million.

[d] $10 million from U.S.; $1 million from UNFPA; $1.8 million from Sweden.

1. Relative Priorities for Social Science Research

In their "Overview of Agency Activities" presented to the Third Bellagio Population Conference, David Hopper and colleagues offered the table (shown on page 124) of budget allocations for major categories of activity by the international agencies most actively involved in population work as of 1972.* The categories shown in this table give only an imperfect indication of the funds actually devoted to social science research related to population policy. Note, for example, that the heading of "population policy issues" also includes population education (not under discussion at this conference), while the heading of "training facilities and resources" includes research and training of central relevance to our concern, as well as non-relevant activities, such as training in provision of family planning services. Nonetheless, one can obtain a rough indication of the relative emphasis given the social sciences from this table if one eliminates allocations for "family planning delivery systems," "biomedical affairs," and "other." The table shows that the larger agencies devote more of their resources to subsidy of family planning delivery systems, while the smaller donors, primarily private foundations, allocate relatively more of their funds to research and training, both biomedical and social science. The dollar amount committed by the latter is quite small, however. It is estimated that in 1973 the Ford Foundation, Rockefeller Foundation, and the Population Council together committed a total of $5.8 million to non-biomedical research and training.†

> Questions for Discussion: Are current levels of funding for social science research adequate or the most that can be allocated given other needs in the population field? Should allocations to social science research be increased at the expense of other kinds of population activity? Have there been significant shifts in allocations since 1972?

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*Working Papers: Third Bellagio Conference on Population, The Rockefeller Foundation, June, 1974, p. 40.

†Net of grants from the Ford and Rockefeller Foundations to the Population Council for population studies.

2. "The Development Research System"

Hollis Chenery of the World Bank presented the following diagram to the February, 1974 Bellagio meeting on Social Science Research and Development. He noted that most donor agencies start from the lower right hand corner of the diagram, that is, they are interested in relatively short-range research activities of immediate practical value. A few donors, mainly foundations, have been interested in the upper left hand part of the chart, that is, a relatively long-term concern with training and institution-building. Mr. Chenery suggested that it was appropriate for different donors to approach the system in different ways, recognizing their several legal mandates and operational concerns, but they ought to consider jointly whether all needs are being met.

Chenery Diagram

"The Development Research System"

Activities

Lead Time	Training and Institution-Building	Data Base	Theory and Methodology	Output		
				Country Studies	Policy Generalizations	Action Research
Long (10-25 yrs.)						
Medium (5-10 yrs.)						
Short (1-5 yrs.)						

Question for discussion: What kind of coordination mechanism, if any, should be established to assure adequate attention to the several sectors of the Chenery diagram?

3. Need for improved data

Inadequate demographic, economic and social data are perennially cited as obstacles to research of use to policy makers. For example:

> There is general need across most of Asia for improvements in the systems of collection of data regarding population and related matters. In general, data of interest to economists tend to be more readily available than demographic and other social data. There appears to be continuing need for improvement of national statistical agencies, particularly in their capacity to undertake sample surveys. This is especially needful in the area of vital registration and intercensal work. A current assessment of the state of this field would appear to be desirable. Perhaps such a review might be of interest to several donors and could be commissioned jointly by them.*

In a memorandum prepared for this conference Andre Lux of CIDA asserts that:

> Census in LDC's are much too expensive for the poor quality and inaccuracy of data they provide (age reporting, for instance). Sample surveys have many advantages as compared to censuses--less expensive; more accurate; use fewer and better-trained collectors; wider coverage of relevant variables in related fields of social sciences. Therefore there is a need to spread knowledge and information on how to build adequate samples according to various human settlement patterns. Censuses are anachronic even in our country, at least from the points of view of demographic and social sciences knowledge. . . . Besides sample survey techniques there is an urgent need for simple devices to organize and run vital statistics.

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*Memorandum, John Bresnan, Ford Foundation, September 18, 1974.

Questions for discussion: How adequate is the assistance to data collection now provided by international agencies? Have we adequate knowledge of the state of data collection? Is there a role here for concerted action by the donor community?

4. Needed Social Science Research

Session 2 of this conference considers in detail the question of needed research. A number of background papers and participants' memoranda are particularly strong in this area. Typical of these contributions is one by Leon Tabah of the United Nations Population Division* which indicates a new emphasis upon "studies aimed specifically to determine conditions of population change as well as projects to facilitate the integration of population and development planning." Specifically, the Population Division proposes research on:

a. Status of women and fertility
Much is said of the impact of the status of women upon fertility. Since status varies according to culture, there is a need for micro studies of the relationships between these phenomena, beginning with the family, in a variety of cultures. At the same time, we want to identify some of the ways in which status of women and other family members influence infant, childhood and other levels of sex-age specific mortality. The Population Division hopes to initiate work in these areas late in the decade.

b. Modernization factors affecting fertility
A share of the resources devoted to fertility studies will be allotted to work on the extent to which and the circumstances in which various modernization indicators, and particularly education, influence fertility. Another important project, intended to provide explana-

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*"Needed Social Science Research Pertinent to the Field of Population: A Memorandum." Prepared for the Ford Foundation Conference on Social Science Research on Population and Development, New York City, 29-30 October, 1974.

tions for the failure or only modest success of family planning programmes, will involve studies of non-acceptance of family planning, focusing upon the roles of culture and of individual and family perception of the fact and meaning of socio-economic and demographic changes.

c. Impact of policies upon reproductive patterns

In order to determine the efficaciousness of various policy measures relative to fertility, it is proposed to undertake studies of the influence upon actual reproductive behaviour--and finally upon birth rates--of such incentives and disincentives as the granting or withholding of child, maternal and family allowances, marriage grants, old age security, taxation, availability or prohibition of abortion and sterilization, prohibition of or easy access to contraceptives, education with and without cost to parents, and so on.

d. Development of methodology

To support the research programmes in fertility and mortality, it is intended to develop methodology for following the family throughout its cycle and observing its reaction to its economic, social and demographic experiences. Among other things, it should be possible, as a result of the studies, to determine stress points in the family cycle and, consequently, to forecast amenability of the family to cooperating by adopting policy measures.

e. Population and development

This is a broad field on which much of our research borders. One of our specific projects, however, involves the development of methodology for integrating population factors in development planning from the standpoint of particular country conditions and needs, so as to facilitate population responsive development planning. We also plan to undertake, among other studies, a comparative analysis of population development in some 70 countries and an investigation of the impact of social and economic change upon demographic trends, in recognition of the need to study not only the factors which influence population trends but also the socio-economic consequences of population changes and expectations.

Of particular note in this research agenda, and that proposed by others, is an emphasis on "micro" studies, of the individual, the family, the community. Andre Lux underlines this point in urging a "grass-root level approach to fertility dynamics" and "new investigations into rural household economics, small community anthropology and cultural psychology."

> Questions for discussion: Are these issues "researchable" given the present state of data and research methodology? Do we need a systematic assessment of the feasibility of undertaking such micro-research studies, critically examining the kinds of data and research techniques required?

Included in the Population Division's research plans and emphasized by others are studies of the socioeconomic consequences of population change. In India, for example, the Ford Foundation has commissioned a series of "Second India Studies," aimed at evaluating problems in sectors of the economy and in specified regions to be faced by 2000 A.D. when the population of India is projected to be twice its present size. While necessarily based on population projections, such studies are carried out by experts in such areas as agriculture, water, urban planning, and energy resources, rather than by demographers or "population experts," and thus are not part of what is traditionally considered as "population research." The involvement of experts from other fields in studying the consequences of population change, however, draws them into the arena of population research. Furthermore, studies of consequences of population growth may have a significant influence on policy makers, giving them a more realistic notion of the burdens they face in accommodating population growth or migration and hence, stimulating greater attention to limiting growth or regulating migration.

The consequences of population change are also a major theme of studies of the micro-economics of families in rural areas of the developing world under the direction of Scarlett Epstein of the University of Sussex. This program has received support from the UK ODM, the World Bank, and the Population Council.

The more usual emphasis of social science research is on determinants of population change to provide insights into motivation with respect to fertility behavior. Such behavior, it is hoped, can be modified by policy measures that alter the environment in which fertility decisions are made. As for example, the UK ODM notes:

> The study of values is also the study of *motivation* which the UK regards as a priority area for social science investigation, not so far studied sufficiently in depth. The UK would be reluctant to support more of the sometimes simplistic KAP studies (knowledge, attitude and practice) which served their purpose in the early stages of the study of motivation but have been shown to have severe limitations within real situations. As in all other social areas the attitude survey has drawbacks and the explanation of why people do not always do what they *say* they will do is a most complex and ultimately most rewarding area of study, and one which must be increased, particularly in relation to family planning programmes.

Questions for discussion: What relative emphasis should be put on studies of *consequences* of population change as opposed to studies of *determinants*? Are there criteria by which relative priorities can be assigned to various areas of research?

5. *Research by whom?*

The World Population Plan of Action as approved by the World Population Conference emphasizes that population policy is the domain of each sovereign nation. The appropriate role of international agencies is seen as facilitating study of the interrelationship of population, social, and economic variables in each nation *by its own nationals* as a basis for formulating development policy. Thus far, however, social scientists in industrial countries have perhaps paid more attention to population policy research in the developing world than have their colleagues in the developing world. A number of U.S. university-based population studies groups and the Population Council are actively engaged in study of population policy in the developing world with support from international assistance agencies. And the UK ODM is planning to support establishment of a Center for Overseas Population Studies (COPS) at the London School of Hygiene and Tropical Medicine. The Center will include a social science sector that will carry out both training and research and thus expand the volume of research on developing world problems undertaken by industrial world institutions. The question arises, should international agencies, as they focus on capacity building in the developing world, turn their backs completely on encouragement of research by scholars of industrial countries on problems of the developing world?

The Bellagio Conference on Social Sciences and Development* did not reach this conclusion. It was the consensus of this conference that:

> "Intellectual imperialism" was already largely an obsolete issue. While research into the problems of development should no doubt become centered in the developing countries themselves it would be unfortunate if institutions in the developed countries were seriously weakened; an effective interchange between both areas was desirable.

And, furthermore:

> While the aim should be at least as far as fairly large developing countries were concerned, to create sufficient capacity to deal with their own development problems, complete self-sufficiency was undesirable and there would remain a role for development research in developed countries (not necessarily confined to "interface" problems) and for a fruitful interchange of knowledge and personnel between the two types of country.

Questions for discussion: Should U.S., U.K. and other Western scholars be encouraged to continue their interest in population research in the developing world? What are the best mechanisms to facilitate their collaboration with Third World colleagues?

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*Papers presented at a conference in Bellagio, Italy on "Financing of Social Science Research for Development," February 12-14, 1974, World Bank, Washington, D.C., pp. 231-237. (Summary and conclusions included among background papers for this conference.)

6. Strengthening capacity for research in developing countries

Strengthening capacity in the developing world for social science research on population and development undoubtedly should be the major element of the international agencies' strategy. Questions of training, institution building, and other mechanisms for capacity building need to be considered under this heading.

a. Training

The discussion of training at the Bellagio conference is pertinent to the special questions of population research. There it was concluded that training of researchers needs to be improved "mainly by shifting more of it to developing countries and by developing more appropriate training patterns." The disadvantages of graduate study in the U.S. and U.K. universities for students from the developing world are well known, including: the brain-drain effect, the expense, and the lack of relevance of much of what is taught to problems of the developing world. But are there universities in the developing world that can produce problem-oriented, empirically-based social scientists possessing the methodological tools necessary to carry out the needed research identified by participants in this conference? And even if adequate graduate training is available at home, how important is a foreign degree for career advancement? At the Bellagio conference it was reported that Kenya offers a mix of graduate work at home and abroad. Ph.D. candidates go abroad for two years of course work, but do research for their dissertations in Kenya. Is this pattern suitable for replication in other parts of the developing world?

> _Questions for discussion:_ Is there now adequate information (e.g., the Population Council's survey of institutional capacity submitted to this conference) to permit Third World policy makers as well as international agencies to make decisions on appropriate training sites or is any further inventory necessary? What can be done to strengthen relevant training in the developing world?

The Bellagio Conference noted that social science research capacity in the developing countries is strongest in the field of economics and is much weaker in the non-economic social sciences. Many of the population research topics identified for priority attention, however, rely on the work of anthropologists, social psychologists, and other social scientists outside the area of economics. The relative prevalence of well-trained economists and strong economic research capacity in the developing world is asserted to be a reflection of the demand for economists by government agencies, banks, and private business, in contrast to the much more limited career opportunities for social scientists in other disciplines. Simply increasing the supply of non-economic social scientists by offering fellowships for graduate study may not, therefore, necessarily result in an increase in research capacity. There is a need also to strengthen existing institutions or build new ones that will offer meaningful careers for the social scientists that are trained.

b. Institutional Development: University centers and research institutes

There are vigorous institutions engaged in research related to population policy throughout the developing world. The institutions forming PISPAL (see description prepared for Session 2) are outstanding examples. The Ford Foundation, among other agencies, helps provide support for an array of institutions in Asia which are presently or potentially engaged in such research including the Pakistan Institute of Development Economics, the Indian Council of Social Science Research, the Bangladesh Institute of Development Studies, the Population Institute at the University of the Philippines, the Philippine Social Science Council, the Demographic Institute of the University of Indonesia, and the Korean Institute for Research in the Behavioral Sciences. A comprehensive index of institutional capacity is contained in the Population Council's Survey of Social Science Research Institutions.

There are, however, major obstacles to an optimum research effort in the Third World. A distinguished American social scientist who has served in one Asian country reports:

> [This country] should be an unusually fertile ground for the nourishment of research on population and related matters. It possesses an intellectual tradition of fairly long standing in which a large part of the middle class and the elite have shared. It has several institutions of higher learning, easy access to foreign scholarship, data producing and processing facilities, and in fact a large accumulation of unexploited data. Superficially everything needed to encourage

> research seems to be present and it does not happen. Research by a [citizen of this country] is so rare that it is an object of special comment when it occurs.
>
> Academic personnel do not engage in research. There appear to be no incentives and no rewards in the universities . . . research carried out in government establishments . . . is done by foreigners and is consistently avoided by [local] technical people in the organization. . . . University students who demonstrate capability and enthusiasm for research--and I have met several very promising ones--have nowhere to go in the system to continue a research career. If they join a university faculty they will be given no time or encouragement for independent scholarship. If they accept a government position they have even less opportunity for research.
>
> Underlying all this institutional blockage is the fact that nowhere in the society is value attached to research, although it receives a considerable amount of lip service.
>
> The problem is how to break what appears to be a vicious circle. A simple straightforward provision of research funds will not do it. A prior condition is a radical change in the intellectual environment. I don't know how to bring that about. Maybe it can be initiated through some kind of organizational innovation or perhaps it will have to originate somewhere in the political process from which most prestigious things seem to emerge. If policy makers were to begin to draw upon research knowledge in their deliberations it would create a value where none now exists.

Questions for discussion: To what extent is this gloomy appraisal generalizable to other countries of the developing world? What are the strategies for breaking this "vicious circle?"

The optimum strategy for developing institutional capacity for social science research on population must, of course, depend on the specific situation. One approach has been the encouragement of multi-faculty, multi-disciplinary population study centers at selected universities in the developing world. The Population Center at the University of Ghana is an excellent example. With AID funding the University of North Carolina has helped organize a network of some directors of such university-based population centers in 14 countries, to exchange experience on common problems.

In his background paper, "Organizational Models for Population Research," Professor Amos Hawley questions whether the typical university faculty is the most suitable locus for policy-directed research. He suggests that "the nearest approximation to an organizational paragon" for research that will affect policy, is a "government-supported research institute, situated on a university campus and under the general administration of the university, but with a large degree of autonomy, particularly in personnel selection and research program determination." The Institute of Social Science and Economic Research, again at the University of Ghana, is an example of such an institution.

> Questions for discussion: To what extent are Hawley's observations generalizable throughout the developing world? Should emphasis be placed on development of the university-based or free-standing research institutes rather than on development of university faculties if the objective is strengthened policy-oriented research?

Several different strategies have been followed with respect to financing of institutional capacity in the developing world. In its memorandum prepared for this meeting UK ODM reports that it no longer provides "block grants" to institutes, but instead offers funding for specific projects. In a paper on the university programs and population centers presented at the Third Bellagio Conference on Population* Jarold Kieffer of AID outlined a model funding schedule for building a university population studies center covering a ten-year period. During this time annual costs are assumed to rise from $50,000 to $250,000. Outside donor funds constitute 90 per cent of the total cost in the first year, dropping by 10 per cent a year to zero at the end of the decade with a corresponding increase in the share borne by local funds. Because the total funds required would build to their peak toward the end of the funding period the actual dollar amount of donor funds required would be relatively small in the early years, even though the percentage of total support provided by the donor would be large.

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*Third Bellagio Conference on Population, May 10-12,1973, The Rockefeller Foundation, p. 57.

The Rockefeller Foundation's University Development Program, now renamed Education for Development Program, has provided core support of $6 or $7 million a year for a dozen universities in developing countries. This program emphasizes institution-building over 15-year periods with appropriations made for one- to three-year periods and renewed if progress is satisfactory. It is estimated that the social science research component of these programs is about 10 per cent of annual financial support, with the directions of research determined by the institutions themselves.*

> Question for discussion: Are there approaches to funding of institutional development that have special relevance to building capacity for social science research related to population policy?

c. Institutional Development: Special purpose institutions

From time to time new, specialized institutions for work in the population field have been proposed. The late Will Myers of Rockefeller Foundation put forward a proposal to establish major multi-disciplinary institutes of population research in the developing world, paralleling the agricultural research institutes. The United Nations studied the feasibility of building a major interdisciplinary population institute to provide a center of training and research for its own personnel as well as for the researchers and administrators in the developing world. An important objective of such an institution was to lessen the dependence of the rest of the world on facilities of U.S. universities. Discussion of these and similar proposals have generally concluded that it is more desirable to build on existing institutional strength through expansion of university or research institute programs or by support of networks in which a number of institutions engage in collaborative research, rather than to build new institutions from the ground up. The present conference may be an appropriate forum, however, to consider briefly a number of suggestions for new institution-building of particular relevance to population policy-related social science research.

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*Social Sciences and Development, p. 215.

In July 1970 Kingsley Davis, when asked to comment on the then proposed Ford-Rockefeller Research Competition in Population Policy, stated:*

> Another possible scheme would be to create a population "think-tank." This would be a bit like the Center for Advanced Study in the Behavioral Sciences except that it would be for population. The advantage of the scheme is that it puts the emphasis on the scholars who are assembled together for a while rather than on a permanent staff. The minute a permanent staff is created, innovation and originality tend to gradually disappear. The scholars could be chosen (invited) on the recommendation of an independent panel which itself would be required to shift in membership. In this way vested interest in a particular point of view would not become a major stumbling block. Such a center could pursue its work in almost any way the scholars chose but they might well work with legislators, heads of state, specialists in various professional and scientific fields.

Some four years later and entirely independently, Kalman Silvert wrote in a memorandum for this conference:

> Some thought might be given to the idea of a truly high-level and small institute of advanced studies for theoretical work in population. If the donor agencies are going to continue (as surely they will) to emphasize application, perhaps they might be willing to dedicate a small part of their resources to permit indisputably first-rate minds to put themselves to the task of trying to figure out what lies behind the conventional wisdom and the conventional techniques. I am not thinking of peopling such a center with our best demographers. I am thinking of some of our best

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*Personal communication.

social scientists, social theorists and methodologists.

Another organizational model is suggested by Lincoln Chen,* Ford Foundation program officer in Dacca, based on the SEATO Cholera Research Laboratory experience in Bangladesh. This would be an autonomous international center, located in a rural area in the developing world, to conduct basic and applied population policy research. The resident professional staff of this center would, as the first phase of its work, establish a reliable demographic data collection system in a rural study population of 200,000 to 500,000.

The rural population would then be the subject of research on such topics as:

(1) Analysis of correlates of demographic processes: differentials of fertility, mortality, marriage and migration;
(2) anthropological and psychological studies of fertility behavior in selected sub-populations;
(3) bio-social determinants of birth intervel dynamics: such as postpartum ammenhorrea, fetal wastage and infecundity;
(4) microeconomic studies of value and role of children;
(5) studies on the status and economic productivity of rural women and the relationship between these indicators and fertility; and
(6) the impact of rural development and agricultural policies on demographic processes.

In the third phase of the center's program a field trial area would be identified for experimentation with a variety of policy and program alternatives, including incentive schemes, nonformal education and employment of women. The center would also develop training and outreach programs.

Still another model has been proposed by Lyle Saunders of the Ford Foundation. This would be a multi-national Asian social science graduate research and training institution similar to FLACSO in Latin America. This institution would have a small permanent faculty of Asians to be recruited from their current institutional positions on the assumption that they could be used more effectively in a regional institution than in national or provincial universities. A larger contingent of visiting scholars on a one- or two-year rotating basis would be included and an advisory and policy board representing the Asian universities and/or social science departments would govern the institution. Graduate, but not undergraduate, degrees would be awarded.

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*Letter to Bernard Berelson, June 18, 1974.

The arguments against the establishment of new, free-standing institutions of this kind are familiar: they require long-term commitments of large-scale funds; they tend to drain away the most able scholars from their present institutions to the latter's detriment; it is difficult or impossible to find a location in a given continent universally acceptable to nationals of all other countries in that continent. A formidable objection is the fact that population policy is nation-specific and research done outside the country would, as a rule, need to be replicated within the country to affect national policy. Perhaps this point can be overdone, however. Similarities of cultural and economic environment may outweigh differences among populations of the several countries in relatively homogeneous regions. The scarcity of internationally acknowledged peaks of excellence in social science research in the developing world, and the continued dependence on industrial countries for graduate study suggest at least a continuing inquiry as to the advisability and feasibility of establishing one or more major international institutions in the developing world. Perhaps social science research relating only to population policy is too narrow a base on which to build a major institution and one should consider instead an institution directed to social science research and training on the spectrum of development issues, of which population policy is a major component.

> Questions for discussion: Are there ongoing feasibility studies for establishment of international institutes for social research and training on population and/or development policy? How can this issue best be studied?

.7 Networks

The Organization of Demographic Associates, the Committee for Asian Manpower Studies and the Association of Latin American Research Institutes constituting PISPAL, are prominent examples of regional networks of institutions engaged in comparative research on topics related to population policy (see descriptions of these networks prepared for Session 2). The Bellagio Conference on Social Science and Development concluded that:

> The success of regional networks . . . depended on the leadership of a strong institution or individual assisted by an efficient secretariat. They could be a means whereby the strong could help the weak, but were more likely to be effective in fields where there were considerable economies of scale. . . . There was a tendency for networks to become exclusive clubs reluctant to admit new members.

Both the strengths and weaknesses of networks identified by the Bellagio Conference seemed to typify those that work in the social research and population field. It should be added that they represent a way in which developed world scholars may participate in comparative research on a collegial basis with their Third World counterparts. The Value of Children project that originated at the East-West Center in Hawaii and is now centered at the Korean Institute for Research in the Behavioral Sciences involves such a collaboration among scholars from seven countries, developed and developing. In general, research networks are effective when they comprise strong institutions; they are not a substitute for building strength at individual universities and research institutes.

Question for discussion: What is the current assessment of the present effectiveness of and future role of networks for research in the social sciences as relating to population policy?

8. Competitions

As described in the background papers prepared for Session 2, the Ford Foundation, IDRC and the Rockefeller Foundation are sponsoring a number of programs, worldwide and regional, under which awards for social science research on population are made on a competitive basis. The worldwide competition jointly sponsored by the Ford and Rockefeller Foundations has solicited applications throughout the world and has judged them on a uniform basis. While a number of awards have been made to researchers in the developing world, most of the winners are citizens of industrial countries. These programs are particularly useful in engaging the interest of a wide spectrum of researchers on population policy-related topics. They can be directed to younger investigators, and in the case of the newly developed Southeast Asian competition, provide linkages between young investigators and senior scholars for assistance in research design and implementation. The research output of these competitions is necessarily diffuse and they are a poor instrument in directing research to the most salient issues currently before policy makers. They should be considered as a supplement to, not a substitute for, a variety of other approaches to strengthening social science research capacity. They are becoming especially attractive to private donors with reduced budgets because they permit a relatively large number of small grants to be awarded with reasonable economy and equity.

> Questions for discussion: Should additional regional competitions be developed in, for example, Sub-Saharan Africa, Latin America, or South Asia? How should existing programs be modified?

9. Links to Policy Making

For a variety of reasons well known to participants in this conference, the results of academic research will not automatically be used by policy makers. The task is especially difficult in the population field because there is a less well developed demand for the results of population research on the part of governmental planners than for more traditional kinds of development research. In their background paper for Session 3, Simmons and Saunders note:

> Social science contributions to policy formation will require a linkage between policy makers and policy researchers that can be implemented by what has been described here as policy analysis. On the one hand in working with policy makers, the policy analyst can assure the understanding and utilization of the products of policy research and on the other in working with policy researchers in the universities and possibly in international consortia, he can help to focus and sharpen their response to critical policy needs and issues and to translate academic research into policy terms.
>
> Effective performance of the policy analyst role calls for a king of paragon that may not be easy to find and recruit in very many

> developing countries (or in developed countries for that matter) and must be regarded as a phenomenon that is hardly likely to take place everywhere and soon.*

This difficult question of linkage is also discussed in Professor Hawley's background paper. A linkage mechanism between population research and policy making, the Population Planning Unit in the Economic Planning Unit in Malaysia, has not become fully effective in its first eighteen months of existence. A number of analogous units are in development stages in Thailand, Pakistan and Bangladesh.

This general problem is expressed in the report on the Ballagio Conference on Social Sciences and Development:

> When research was not directly commissioned by governments but produced results relevant to policy it was often difficult to bring it to the attention of the policy makers . . . politicians it was said obtained information and ideas from personal contact rather than reading; they would only read papers if convinced that they were of immediate interest to them. Thus it was often better first to try to enlist the interest of their assistants. . . . It was desirable to express research findings in nontechnical language if the attention of policy makers was to be attracted. (p. 235)

Saunders and Simmons make the point that:

> It is clear that given the increasing sensitivity and skepticism in the developing countries regarding the use of foreign advisors which may be well founded for reasons other than xenophobia, since policy analysis lies close to the heart of the political decision making apparatus, policy analysts should be recruited from a country's own professional ranks. (p. 20)

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*"The Present and Prospective State of Policy Approaches to Fertility," pp. 19-20.

Questions for discussion: Are linkage mechanisms between policy research and policy makers an area in which outside donors can assist? Or are these mechanisms peculiarly affected by considerations of national sovereignty and appropriate only for internal funding?

10. Opportunities for Donor Collaboration

The steering committee for the series of conferences on social science research and development, of which this is the first, listed a number of instances in which joint or multiple financing for research activities is most likely to be useful:

- large-scale cases (including, but not limited to, programs involving the collection of large amounts of data and multi-country programs)
- cases of innovative or high-risk substance (where donors may wish to have partners in financing)
- cases in which recipients may prefer to have multiple sources of financing
- cases of internal constraints on donor action
- comparative studies (that might be parcelled among donors on a geographic basis)
- "network" organizations
- cases of complementarity (in which different donors would finance different aspects of population research in a given country or region).

Included as background papers for Session 5 are a non-systematic selection of possible candidates for joint funding that came to the attention of the organizers of this conference in the recent past. It is hoped that participants will bring forward other suggestions for consideration, and if one or more seem promising, agencies represented at this conference may wish to assign staff to conduct further explorations.

Participants' Memoranda

Resource Persons

Population, Social Change, and Development

by

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September, 1974

Population, Social Change, and Development

by

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1- Introduction

1-1 Three themes, that constitute a trilogy which is today the subject of worldwide concern and more than just concern in the developing countries.

The first two are organically related. The study of one of them implies the study of the other. Their relation to the third, that is development, is much more complex and problematic. Part of the complexity derives from the ill-definition of the concept of development.

The concept of societal development is frequently taken in the restrictive sense of economic development. This is a basic mistake which usually reflects itself in policies where social and economic development are treated as two different subjects. Societal development has to be seen as a whole.

1-2 In the context of societal change, one has to differentiate between the case of the developed and that of the developing countries.

For the developed countries (e.g., Western Europe, North America and the Soviet Union), development usually corresponds to a process evolving in a "given structure," relatively invariable or slowly changing. It implies no fundamental changes of structures, and structural changes when they happen are usually the result of the interplay of mechanical relationships within the established structure.

In the case of the developing countries, development cannot be successfully launched without having fulfilled some preliminary, or at least simultaneous, conditions pertaining for example to changes in mentality, institutions, attitudes and social relations. Development would thus need, as a prerequisite, a radical transformation of existing structures.

1-3 A socio-economic entity changes under the effect of various forces. These changes progress through successive phases. There is a great need in developing countries, to describe and understand their present and projected societal entities, to determine the forces affecting and effecting changes and how far these forces are contradictory, interdependent, synergetic and cumulative.

2- Planning for Fertility Reduction as an Integral Component of Planning for Societal Development

2-1 The last decade witnessed the failure of the notion of economic development, in the narrow sense of raising per capita national product on the basis of purely economic considerations, to serve as a model of societal development for less developed countries as well as the inadequacy of the conventional family planning program approach to affect significant reductions in fertility level independently of the state of societal development.

2-2 As already mentioned, societal development entails structural changes in the socio-economic system and that the institutional aspects of these changes form necessary conditions for economic development, in the narrow sense, to take hold. Consequently, planning for societal development must follow a total system approach with the socio-economic system as the object of analysis and synthesis.

2-3 Due to the complexity of socio-economic systems, planning for societal development inevitably requires the partitioning of the system into manageable subsystems. However, these subsystems have to be defined in such a way that the interconnections among them are clearly identified in order to facilitate meaningful synthesis of the subsystems.

2-4 While lower rates of population growth will not solve the development problems of less developed countries, they will definitely lessen the pains of societal development. There is general agreement that the only acceptable and feasible approach to attain lower rates of population growth is the reduction of fertility.

2-5 If planning for societal development is to truly follow a total systems approach, it must include population planning as a subsystem. One important component of population planning would be planning for fertility reduction.

2-6 Although family planning programs scored initial successes in catering for latent demand on contraceptive services not already transformed to actual contraceptive practice due to lack of easy access to efficient contraceptives, their effect on fertility level has not been pronounced. In other words these programs did not in most cases succeed in creating new demands. This is basically due to the fact that the socio-economic systems in less developed countries are not consistent with behavioural patterns leading to low fertility. Such inconsistency cannot be resolved by conventional family planning programs but handling it obviously lies in the domain of planning for societal change.

2-7 To attain lower rates of population growth within the framework of the process of societal development, changes in the socio-economic system sufficient to transform it to a state consistent with low fertility levels represent a logically valid policy entry point. To determine and to achieve these changes three tasks must be accomplished:

(a) Identifications of characteristics of the socio-economic system, and the process of societal development, that are critically related to the level of fertility; a problem of systems analysis.
(b) Investigations of appropriate operational schemes designed to establish and reinforce those aspects of the socio-economic system, or the process of societal development, consistent with low fertility levels, a problem of systems synthesis.
(c) The development of proper "Technology of Change" which would make such schemes operational.

Needless to say these tasks have to be imbedded in a total systems approach of planning for societal development. This implies in particular that consideration of the subsystem of planning for fertility reduction must be done with full recognition of the interconnections of this subsystem with the rest of the subsystems of planning for societal development.

Interrelation of Population Policy and Aspects of Development

by

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October, 1974

I. Interrelation of Population Policy and Aspects of Development

by

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The relationship between population and development variables is recognized. The Bucharest Conference, for example, concluded that "population and socio-economic development are closely interrelated. Demographic trends are affected by socio-economic development and, in turn, affect economic growth and social progress." Of course, this interrelationship is rather complex. Various studies have been, and are being carried out, to study this interrelationship in more detail.

It is now generally recognized that the ultimate aim of any population policy should be to affect all aspects of development in order to bring about an improvement in the quality of life of every individual within the state. Thus, population policy should _inter_ _alia_, aim at reducing morbidity and mortality, reducing unemployment, raising the levels of living of all communities, rural or urban, and generally ensuring socio-economic progress. Any population policy which does not aim at these objectives is unlikely to be regarded as relevant to the needs of the particular country.

In many developing countries, population policies were evolved as an answer to the problems posed by the high rates of population increase. Many countries found their rates of population growth outstripping their capacity to provide education, health and employment to their populations. Thus, population policies became identified solely with family planning or population control policies. But population policy should be more comprehensive. It should cover not only one component of population change. It should address itself to problems posed by the other components--mortality and migration.

Thus, Ghana's Population Policy statement of 1969 sought to deal with all aspects of the population question in the context of development. On the question of migration, for example, policies were formulated to stem the rapid drift of populations from rural areas to the urban centres. The basic approach was to stimulate development in the rural areas so as to remove two of the main reasons for migrants leaving the rural areas for towns: the push factor of the depressed social conditions of the rural areas and the pull factor of their perception of employment opportunities in the towns. Here, the interrelationship of population policy and some aspects of development is clearly in evidence.

It is worthwhile pointing out that these countries which have so far been unable to adopt explicit policies aimed at curbing their high rates of population increases have argued either that the population increases are no drag on their development or that development has an inbuilt process which could lead to a gradual decline in population growth rates. Both schools of thought base their arguments on historical and other grounds. While opinions differ as to the validity of the assertions of the first school of thought, there is very little disagreement with the view that the elements of socio-economic development--education, wage employment, industrialization--have a "contraceptive" effect on the population.

In conclusion, it should be stated that the relationship between population variables and development has to be studied in greater detail. Population policies should be formulated taking into account this interrelationship to ensure that such policies are relevant to the objective of every nation to provide improvements in the levels of living of all its people. In this context, the following extract from the World Population Plan of Action, adopted by the World Population Conference is relevant:

"The principal aim of social, economic and cultural development of which population goals and policies are integral parts is to improve levels of living and the quality of life of the people. Of all things in the world, people are the most precious. Man's knowledge and ability to master himself and his environment will continue to grow. Mankind's future can be made indefinitely bright."

II. Social Science Research Needed for Population Policy

Research needed for the formulation of population policy is usually related to the three components of population change--fertility, mortality and migration. In the Codesria (Council for the Development for Economic and Social Research in Africa) Workshop on Population and Economic Development, held in Lome, Togo in July 1973, five main areas of population research were defined for Africa:

(i) Vital registration
(ii) Population, resources and the environment
(iii) The size, growth and structure of the labour force
(iv) Migration
(v) Youth attitudes to population problems.

It is to be noted that these broad topics cover the essential areas of population research needed for the formulation of population policy in any country. The first topic "Vital Registration" is one aspect of the collection of Demographic Data which is an essential first step in the process of analysing population data. It is well-known that an obstacle to meaningful social science research in a number of developing countries is the absence of reliable data. In the field of population, lack of reliable estimates of vital rates is normally a serious handicap to research. Thus, one of the broad areas of research needed is in this field of vital registration. The research should be both methodological and "applied." The methodological research could look at the various alternatives for obtaining vital rates and determine the most effective system taking into account prevailing social systems and attitudes within the country. "Applied" research, in this context, refers to the applications made of the results of the basic rates so obtained. Thus, studies on the relationship between infant mortality and fertility levels, socio-economic factors affecting fertility, etc. would form important fields of study in this area.

The second broad theme of "Population, resources and environment" was discussed at some length at the World Population Conference held in Bucharest from August 19-30, 1974. However, some of the conclusions arrived at that Conference were based on partial information generally derived from research work carried out in developed countries. Research on this topic conducted in the Less Developed Countries (LDCs) would be a useful supplement to the work done in the more developed countries. Codesria intends to conduct a Workshop shortly on this theme, to which those engaged in research in this area would be invited to discuss their approach. It is also hoped to develop a more detailed research outline on the subject and to initiate collaborative research among participating economic and social research institutes in Africa.

The third broad theme is that of the labour force. Rapid population increases in the developing world have led to large increases in the labour force. A study of past trends is an essential step in any discussion of future prospects. It is my view that the growth of the labour force in the coming decades would pose serious problems for a number of developing countries and that the formulation of employment policies taking into account the characteristics of the labour force would constitute an essential element in the population policies of many LDCs.

In a number of African countries, migration, both internal and international, has become a problem of concern to governments. Policies affecting international migrants have been adopted which have not been based on adequate research. For example, aliens have been ordered out of a number of African countries without adequate studies of the probable effects of such acts on the economy of these countries. Thus, it is desirable to study the contribution of migrants to the growth of the economy of receiving countries while at the same time studying the effects of emigrants' remittances on the economy of their countries of origin. Internal migration also needs to be studied in much more detail in most developing countries, especially in relation to the rural-urban drift. Models will need to be constructed to explain this drift which will take into account social, economic and psychological factors which lead to these migratory movements.

The final theme is the attitudes of the youth to some of the population problems confronting the world today. The International Youth Forum which preceded the World Population Conference attempted to discuss these attitudes but useful research will need to be done on this subject before any meaningful conclusions can be reached.

In this short paper, I have only tried to identify myself with the choice of the five main themes made by Codesria. Admittedly, there are other areas of social research of relevance to population policies, for example, cost-effectiveness studies and cost-benefit analysis in relation to family planning programmes. However, it is my view that the five main research topics should be explored before other subjects are studied.

III. Social Science Research Capacity in the Developing World and Its Links to Policy

There are usually three main constraints to the development of Social Science Research Capacity in the Developing World: funds, manpower and availability of data. However, in the field of social science research related to population policy, there appears to be enough money available. The main constraints therefore are that there are very few developing world scholars, especially in Africa, who can make the best use of the research grants, and secondly, there is lack of adequate data.

The recent establishment of the U.N.-Ghana government-sponsored Regional Institute for Population Studies (RIPS) in Legon, Ghana, to train postgraduate students up to the Master's degree level together with the Demographic Centres at Cairo and Yaounde and the various African University graduate programmes in Demography should go a long way towards meeting the needs of Africa in the field of available manpower to do research. It should be noted that it is the intention of RIPS to produce Ph.D. students in the near future. When the institute is developed to that stage, the needs of Africa for trained manpower in the demographic field would more or less have been met.

However, social science research, even if it is limited to those areas of relevance for the formulation of population policies, does not require only demographers. The whole range of social scientists--sociologists, psychologists, economists, statisticians, etc.--are required, because such research is interdisciplinary in nature and usually requires a multidisciplinary team for it to be successfully carried out. This view is rapidly gaining acceptance in African countries and more social scientists outside the field of technical demography are engaged in population research than before.

But even if enough social scientists are available to do the needed research, the basic problem of lack of reliable data will prove a serious impediment to their work. Research work of this nature usually requires a wide range of data. If the research worker has to spend a lot of his time on data collection, for which he may not have special expertise, his ability to carry out meaningful research within a specified time period usually suffers. It should be noted that in Africa there are a number of countries which have never taken censuses before. Whatever sample surveys have been conducted have usually been of very doubtful reliability. This situation was considered so serious that the United Nations Population Commission proposed an African Census Programme which is now being carried out by the Economic Commission for Africa (ECA) with funds made available by the United Nations Fund for Population Activities. The data for some of these censuses are becoming available and should prove adequate in meeting the needs of social scientists in the region. In addition to the African Census Programme, the proposed series of integrated multi-subject household surveys to be carried out by African countries with the guidance of ECA should go a long way towards meeting the data needs of Africa. Universities in Africa will, however, have to undertake from time to time specialized surveys to probe deeply into some aspects of social science research which neither the African Census Programme nor the proposed household sample surveys can do. The success of the proposed household sample surveys will, of course, depend to a large extent on the assistance that developed countries are willing to give. The serious world economic situation makes it difficult to predict how much assistance will be made available to the project.

So far in a large number of African countries social science research has been proceeding in isolation without any meaningful links being forged with the decision makers. In fact links between research institutes and decision makers have been rather weak. This weakness has been recognised and a number of countries are taking remedial action. In Ghana, there is a two-pronged solution to the problem. The research institutes have set up advisory boards on which decision makers are represented. For example, my Institute, the Institute of Statistical, Social and Economic Research has on its Advisory Council not only representatives from relevant University departments but also:

The Director of the Budget, Ministry of Finance
The Director of Planning, Ministry of Economic Planning

The Director of Agriculture, Ministry of Agriculture
The Government Statistician
The Chairman of the Council for Scientific and
  Industrial Research
The Governor of the Bank of Ghana
The Managing Director of a commercial firm.

Thus, these decision makers are able to communicate their views and priorities to the Directorate of the Institute and vice versa.

On the government's (decision makers) side, a start is being made to get the research institutes represented on the various committees of the Manpower Board. Thus, the institutes and the decision makers have two formal links--one at the institute level and the other at the level of governmental committees.

It will be misleading to pretend that these links are being maintained in a perfectly satisfactory way. But a useful beginning has been made and improvements can be made with the passage of time.

Social Science Research Needed for Population Policy

by

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October, 1974

Social Science Research Needed for Population Policy

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With special emphasis on social science research needed for population policy (Agenda item 2) a few remarks will be made.

First, interrelation between population and development. Social and economic implications of future population change up to the year 2000 should be a priority area of research in individual countries. In this case, of course, a future population projection at least up to the year 2000 must be available and also revised continuously by using up-to-date data. Since estimated population change, including size and age-sex composition of population, does not seem to deviate significantly from actual population in the period of 20 years or so, social and economic implications assessed should be seriously taken into account in formulating social and economic development policy, which very likely tends to influence migratory behavior and population distribution. Consequently, overall development policy should be carefully planned in advance in order to induce desirable migratory movement and spatial distribution. Such an interrelationship between development and population is recognized and emphasized generally. However, what is really important is that such interrelations should be made clear in a concrete way in individual countries, which are very different in terms of socio-economic structure and development stage, with even more diversity of culture, religion,and so on.

Second, social and economic factors influencing migration. This is an area of research which should be developed nationally and internationally. Migration may be considered a key factor associated with development and fertility behavior. However, migration study is lagging behind those of fertility and mortality. Redistribution policy of population has increasingly been the subject of national policy due to rapid urbanization everywhere in the world. To formulate migration policy, basic research about socio-economic factors motivating migratory behavior is urgently needed. On the other hand, theoretical study on optimum spatial distribution of population may be useful as a guideline for policy making.

Third, cross-cultural and micro-level study of fertility behavior. In spite of abundant studies of fertility, cross-cultural and micro-level study should be emphasized, because the relationship between individual reproductive behavior and governmental interference like family planning policy is a new area of study, in developing countries in particular.

Fourth, stationary population study. Very recently the idea of stationary population policy has been a serious concern among specialists and policy makers. However, the social and economic effects of a drastic change of the age composition of the population anticipated in the path to a stationary population have not yet been seriously examined. In view of the increasing interest in and importance of the World Population Plan of Action, theoretical studies should be developed.

Interrelationship of Population Policy and Aspects of Development; Social Research Needed for Population Policy

by

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October, 1974

1. Interrelationship of Population Policy and Aspects of Development

by

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If an interrelationship between population policy and aspects of development can be postulated to exist, it is because one accepts that demographic variables--the subject of population policy--affect and are affected by social and economic variables--the subject of other policies.

Beyond this broad generalization, which is the true level of our scientific knowledge on the population-development relationship? The literature on the discourse as to how the population side of the relationship influences the development side and vice versa, is indeed abundant.

In the first case the debate has centered on whether the high demographic growth rates of the developing countries constitute a negative, neutral or positive factor vis-à-vis their development. Fertility, as the critical determinant of growth, has received preferential attention. Several types of econometric growth models have been developed in an effort to show the beneficial effects on the potentials for economic growth of a decline in fertility. Perhaps the most debated work along this line has been the pioneering study by Coale and

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Author's note: In the preparation of this memorandum I have drawn on works done at CELADE and at the Central Unit of the Programme of Social Research on Population Problems Relevant to Population Policies in Latin America (PISPAL). It nevertheless should be taken as reflecting personal views which might not be shared by the scholars associated with the works consulted.

Hoover[1] which utilizes a production function of the Harrod-Domar type and which was later followed by other models introducing labor in addition to capital in the production function. All these models as well as those which have proposed cost-benefit analysis methods for programmes of fertility reduction have been subjected to criticisms on several grounds: the paucity of empirical knowledge coupled to the inadequacy of some of the basic concepts of economic analysis; the difficulty of incorporating into the models the broad spectrum of social, economic and political inputs;[2] etc. Even granting that these limitations could be overcome, still many economists from the developing nations would not subscribe to the hypothesis linking in a causal relationship a high fertility and a low rate of savings either at the level of the family, or at those of the private and public sectors. Some consider as very simplistic the contention that the availability of savings is the main determinant of the level of investments. The incomplete and aggregated nature of the models has been pointed out by some authors, stressing the need of the inclusion of such elements as the external sector, the income distribution and some structural characteristics of the economic systems prevailing in most developing countries, i.e., underemployment, monopolistic organization of markets, etc., as well as the advisability of disaggregating the production and the consumption functions. It should be pointed out that the critics of these models come from scholars of different parts of the world and from diverse and sometimes quite opposite schools of economic thought.[3] Whatever the school of thought, it should be recognized, though, that the critics either finish with pleas for "further analysis" or for structural changes of society while the issue continues to beg theoretical explication and empirical verification.

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[1] Ansley Coale, Edgar M. Hoover, "Population Growth and Economic Development in Low-Income Countries" (Princeton: Princeton University Press, 1958).

[2] B. Maxwell Stamper, "Population Policy in Development Planning: A Study of Seventy Less Developed Countries," page 7.

[3] See, for example, Simon Kuznets, "Population and Economic Growth," in Proceedings of the American Philosophical Society, Vol. III, No. 3, June, 1967, pages 184-193; Angel Fucaraccio, "El Control Natal: Viejos Argumentos Bajo Nuevas Apariencias," unpublished paper prepared at CELADE; and K. H. Khalil, "The Impact of Development on Population Growth," paper submitted to the United Nations Cairo Symposium on Population and Development, E/CONF. 60/SYM.I/23.

Most proposals for the improvement of the econometric models have dealt primarily up to now with economic variables. More recently attention has been called to the need of examining the empirical validity of the hypotheses frequently included in the models on the factors determining the preference for larger or smaller numbers of children, thus suggesting that the study of the family be undertaken from a broader perspective than just a strictly economic one.[4] In summary no one seems to be able to claim that it has established beyond doubt the direction in which population growth affects development, or even its more restricted manifestation, economic growth. A favorite example cited for Latin America is that of Argentina and Uruguay with low rates of demographic growth and equally low rates of growth of the gross national product as compared with Mexico and Brazil where both the population and the gross national product have been growing in recent times at a rather significant pace.

If we turn our attention to the other side of the relationship, namely that of the influence of the economic and social factors upon population growth or upon its determining variables, fertility and mortality, it can be said that correlations, sometimes of a high order, have been found to exist between the levels of these variables and hence the level of growth, and some economic and social situations and changes which are dependent on the particular stage and pattern of development.

What remains still unclear is how the causal relationship could be explained, in view of the fact that studies that have attempted to relate for example, fertility behavior to some indicator of development, have found negative correlations in some cases[5] and positive in others.[6] Still others find that the direction of the relation varies according to the level of development[7] achieved by the country in question. Furthermore, when the relation is in general negative it has been found that for quite similar levels of development a rather broad range of demographic behavior does occur.[8]

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[4] Raúl Urzúa, Internal PISPAL memorandum.

When more specific aspects associated to the process of development are examined in an effort to uncover the nature of their relation to fertility and mortality behavior, the results tend to appear as more coherent with what could have been postulated *a priori*: educational level is negatively correlated with levels of fertility and mortality; the same appears to be true as regards the level of urbanization; female labor participation, by introducing what has been labelled as role incompatibility, has also been shown to have some relation to fertility behavior.[9] Useful as these studies are, they concentrate for the most part in the analysis of the relation of a single element among a complex set of societal processes, thus failing to examine the multiple interrelations between intermediate factors affecting the element singled out for analysis.

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[5] See, for example, *Population Bulletin* of the United Nations,No. 7, 1963; Robert H. Weller, David F. Sly, "Modernization and Demographic Change: a World View," *Rural Sociology*, Vol. 34, No. 3, 1969, pages 313-326; Edward G. Stockwell, Some Demographic Correlates of Economic Development," *Rural Sociology*, Vol. 31, No. 2, June 1966, pages 216-224.

[6] Robert Weintraub, "The Birth Rate and Economic Development: An Empirical Study," *Econometrica*, Vol. 40, No. 4, October 1962, pages 812-817; Irma Adelman, "An Econometric Analysis of Population Growth," American Economic Review, June 1963, pages 869-911; Murray Gendell, "Fertility and Development in Brazil," *Demography*, Vol. 4, 1967, pages 143-157.

[7] Stanley Friedlander, Morris Silver, "A Quantitative Study of the Determinants of Fertility Behavior," *Demography*, Vol. 4, 1967, pages 30-70.

[8] United Nations, *Population Bulletin*, *op. cit.*, page 7; Weller, Sly, *op. cit.*, page 322.

[9] A discussion of some findings for Latin America can be consulted in "Social and Economic Factors Affecting Population Trends in Latin America," an ECLA/CELADE paper prepared as background documentation for the World Population Conference, 1974.

The unavoidable conclusion is that despite the need of providing the policy makers with satisfactory answers regarding the effect of population growth on development or on how this might affect the future demographic trends, the explanations being advanced by social scientists are still lacking a solid scientific support.

In an effort to overcome some of the limitations of the analytical approaches so far taken for the elucidation of the relationship of population growth and development, a group of social scientists working at CELADE are proposing a reformulation of the issue, as a first step towards the eventual implementation by governments of population policies or for the evaluation of their effects. In this regard population policy is defined as *the adoption by the government of a country of measures deliberately addressed at influencing demographic variables, whether as their principal effect or as a foreseen side effect.*[10] This definition:

a) circumscribes the policies to governmental decisions, whatever the hierarchical level at which they are adopted, but it excludes "policies" by international organizations, religious groups or private associations;

b) excludes the unforeseen demographic effects of economic and social policies;

c) includes the direct or indirect action on *any* of the basic demographic variables and not only those that attempt to influence fertility;

d) does not exclude *a priori* any measure which could be considered adequate to reach the desired objectives: development policies aimed at obtaining given demographic objectives, family planning and measures which go "beyond family planning."

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[10] This definition follows very closely that proposed in the document "Population Policy and the Family: The Latin American Case," prepared by CELADE as background documentation for the World Population Conference, 1974.

Development, of course, is also defined. It is considered as going beyond the mere economic growth to include objectives related to income distribution, employment opportunities, social services (education, health, housing, social security), social participation and the agrarian organization.

The approach being proposed[11] rephrases the terms of the "problem" about "demographic growth as an obstacle to development" by trying to clarify to what type of development one is referring, since--it is postulated--different models of development would have different implications in terms of population policies. The model of development is a consequence of the internal political project adopted and the manner of insertion of a given country in the world economic system. Evidences can be cited in support of the assertion that the path followed by the demographic processes and the resulting structures seem to have depended on the course followed by the development model adopted and the type of economic and social structure to which it has led.

In the case of Latin America the demographic phenomena considered by many as the most problematic, namely the rapid population growth and the intense process of urbanization, rather of metropolization, appear as having their main causes in the historical process which led to the formation of capitalistic dependent societies characterized by a growing internal heterogeneity. The differential manner of insertion of these societies in the world economy determined initially the formation in most countries of national economies dependent on exports of agricultural products, cattle, mineral products or other raw materials. This phenomenon tended to concentrate development in the areas of the country more closely associated to these exporting activities, primarily in the cities, most of them located along the coast or near it. This process of urbanization receives an added impetus after the 1930 decade when the economic crisis of the early years of the decade leads to the adoption by many Latin American countries of a new model of development based in imports substitution through industrialization. By locating the industrial activity in the most populated cities, where it finds market for its production, devoted mainly to consumption goods, new incentives are generated to attract population from the smaller cities and the rural areas, where the process is reinforced due to the stagnation or deterioration of important agrarian sectors.

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[11] Gonzalez, Gerardo. CELADE Internal memorandum.

The industrialization process is primarily capital intensive, based on the importation of highly sophisticated technologies and therefore with limited manpower absorption capacity, which contributes to the shaping of an internally heterogenous economic structure, where highly productive modern sectors and enterprises coexist and interact with relatively primitive low productivity sectors and enterprises. This heterogeneity, which contributes to polarize in opposite directions the countryside and the cities, and within these, modern and traditional sectors and sectors marginated from the labor market (which is incapable of absorbing with acceptable levels of productivity, the available manpower) manifests itself in a very uneven income distribution and access to basic services of education, health, housing and social security.[12]

This structural heterogeneity also expresses itself in demographic terms, through a differential reproductive behavior and may be advanced as the factor explaining the persistent high rates of fertility in spite of the marked decline experienced by the mortality.

If it could be postulated that the demographic dynamics of the past have been shaped by the process followed by development and by the resulting structures, it is probably in order to ask ourselves to what degree future changes in these dynamics will depend on the developmental model pursued in the future.

In Latin America, especially since the 1960 decade, several countries of the region have been pursuing different development strategies, which vary not only in what might be called the technical options, but also in the value system within which they are placed and in the type of society which they are aiming to achieve. The cases of Brazil, Cuba, Peru and Colombia can be cited as examples of different strategies of development. In all probability these diverse developmental models and strategies will have differential effects in factors such as modalities and levels of organization of the social base and of its capacity to influence the political process; the income distribution; the spatial location of economic investments; the employment opportunities; the mode and degree of women participation in economic, social and political activities; the development and coverage of educational, health, housing and social security services; the types of land property and of other means of production and the organization of the productive units, both agrarian and industrial.

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[12] For a recent discussion of this subject, see: "Estudio Económico de América Latina 1973. Tercera Parte. El Cambio Social en América Latina a Comienzos de los Años Setenta," CEPAL, Naciones Unidas, E/CN.12/974, Add. 3. Santiago de Chile, julio, 1974.

Granted that these differential effects would occur, one could ask to what extent given models of development, in a manner relatively independent of the pace of economic growth and of the level of the per capita income that they might generate, would lead to economic and social structures which in turn would influence the demographic dynamics towards a pattern different from that arising as the result of another developmental model.

In summary the research problem could be laid in the following terms:

1. The changes in the demographic dynamics needed to achieve given objectives of population policy in the developing countries, as for example the reduction of fertility or a less concentrated urban population, depend mainly on:

- the development model adopted or on
- the implementation of more or less direct measures?

2. What are the economic and social conditions necessary (or more favorable) under which certain specific programmes (family planning, for example) would yield the desired demographic effects, within a concrete situation? And to what extent the creation of these conditions is dependent on the developmental model pursued?

Needless to stress that the attempt to answer these questions raises important research issues.

2. Social Research Needed for Population Policy

The elucidation of the relationship between population and development becomes relevant for population policies to the extent to which it:

a) will contribute to a greater clarification of the relevancy of demographic factors to different political projects and to the developmental model which they pursue;

b) will allow to examine the demographic effects--direct, and to the extent possible, indirect--of the development strategies and sectorial policies of the different countries.

The analysis of the relation between population and development is also needed in order to determine the possible range of population policies, as well as the feasibility, efficacy and comparative efficiency of different policies. In order to advance in this direction some other subjects would have to be examined, namely:

a) The form in which the political parties, their leaders and the different pressure groups perceive the relation population/development.

b) The characteristics of the distribution of the political power and the probability, in the face of given distribution patterns, of the various policy alternatives of receiving the necessary support to be approved and implemented.

c) The degree to which major or minor opposition to the implementation of these alternative policies might arise as a consequence of values held by individuals.

d) The capacity of the government bureaucracy to implement them.

Author's note: In the preparation of this memorandum I have drawn on works done at the Central Unit of the Programme of Social Research on Population Problems Relevant to Population Policies in Latin America (PISPAL), particularly those of Armando Di Filippo, Raúl Atria and Raúl Urzúa. Special acknowledgements are due to the latter. The views expressed though, are personal and might not be shared by these scholars.

Once a policy has been adopted and implemented it becomes indispensable to evaluate its results periodically, so that corrections may be introduced as needed or if proven inadequate, replace them by others. This evaluation requires an understanding of the relation population/development (so that it might be possible to determine if other sectorial policies have brought about involuntarily demographic effects which have modified the expected impact of the adopted population policy). It also requires the insight which would be gained by the study of points (b), (c) and (d) above.

This brief reference to the points on which information is needed in relation to policy adoption and successful implementation, underscores once more, the importance of research on the relationship population/development. It has been pointed out in the memorandum submitted for discussion of point 1 that in spite of research already undertaken, doubts and ambiguities continue to exist. The main difficulties could probably be traced back to the characteristics of most of the studies so far conducted, namely:

a) Explicity or implicity, they conceive development as a unilinear process basically identical in the different countries.

b) They are in search of universal generalizations, at least applicable to all developing countries, instead of limiting the analysis to specific countries.

c) They explain the presence or absence of the expected relations by resorting to certain variables whose impact on the demographic processes under analysis, is examined in isolation from the context in which these relations are established, and assuming that they are not affected by it.

d) In spite of the fact that they are essentially ecological correlations, there is a tendency to draw conclusions from them regarding individual behavior without previously relating macro- and micro-strucutral factors.

e) They utilize generalizations based on correlations and regressions between areas and countries in a given moment of time to derive the direction and weight of the causal relationship among variables.

The first need of social research relevant to population policies is the search for approaches and perspectives which will help to overcome the present difficulties. A move in the right direction could in all probability come from an approach having the following characteristics:

a) the abandonment of the ceteris paribus principle, examining the problem with due consideration to the specific characteristics of the historical-structural context and the model of development of a concrete country;

b) the adoption of a perspective which would allow the integration of the contributions of the different social sciences;

c) the careful examination of the chain of relationships, from its more macro-structural extreme to the variables more directly related to the demographic variable to which action is addressed;

d) in all cases in which this might prove feasible, attempt to examine the relations between certain aspects of development and the demographic system taken as a whole, rather than limiting the analysis to only one variable;

e) attempt the identification of those variables susceptible of direct manipulation and the extent to which its behavior affects or is being affected by the presence of other contextual variables which are not subject to manipulation.

The second need is that of identifying those areas of research having greater strategic relevancy in relation to population policies. To adequately justify them a very complete diagnosis of the demographic situation and perspectives of the Latin American region would be in order. In its absence we could agree on certain broad fundamental characteristics, namely:

a) Latin America presents a great heterogeneity of demographic situations, which tends to remain hidden when, for purposes of comparison with other regions of the world, averages are utilized for the continent as a whole. According to the document submitted by CELADE to the meeting of Latin

American governments in Costa Rica,[1] the average annual rate of demographic growth for the region was of 27.63 per thousand in the period 1970-1975, but thirteen countries were above this average and the range of variability was from 32.77 per thousand for the Dominican Republic to 11.61 per thousand for Uruguay. The total fertility rate would be in that period of 5.29, fluctuating between 7.28 in Honduras to 2.91 in Uruguay, while life expectancy at birth was in the average of 61.47 years for the whole region, ranging from 46.75 in Bolivia to 70.08 in Uruguay. In the two latter cases more than half the countries fell above (or below, depending on the indicator) the average;

b) within countries, although in different degrees, there are quite diverse demographic situations among regions;

c) the urban-rural differentials are more or less significant, depending on the countries and regions within them;

d) there are also differences among countries as to the degree of variation existing in the demographic behavior of different social groups, classes and strata;

e) the unequal distribution of the population among regions of a country and the growing metropolization points to the spatial distribution of the population as an area of concern at least equally important as that arising from the rate of growth.

From the point of view of population policy the task is to determine how the model of development and the process followed in its implementation by the different countries--described by many of the most influential social scientists of the region as conducive, for the most part, to a permanent, and in some cases growing, heterogeneity both regional and sectorial and a marked inequality in the accession to well-being--affects or is affected by the demographic characteristics.

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[1] "Demographic Situation Around 1973 and Prospects for the year 2000," CELADE. ST/ECLA/Conf. 48/L.5.

In another memorandum[2] I have tried to point out the historical role which both the agrarian and the industrial sectors have played in shaping the present situation of many of the Latin American countries. It is therefore justified to start our examination of the research needs considered as of first priority with those related to agrarian development, followed by those related to industrialization and urbanization. Mention will also be made of other research topics which should be undertaken in order to clarify other aspects related to the adoption of population policy.

1. Agrarian organization and development and population. From the demographic point of view, the rural areas of the great majority of the Latin American countries show higher fertility than that of the urban areas. Mortality, specially infant mortality, while not as conclusively as in the case of fertility, shows a positive relation with the rural character of the communities. On the other side, as a consequence of the expansion of the industrial and service sectors coupled to the incapacity of the agricultural sector to absorb manpower, the migrations from the countryside have contributed in a significant manner, to shape the modalities of the urbanization process. To conduct studies on the agrarian and rural situations would therefore allow focussing the attention on phenomena which to a considerable degree determine the future trends and processes of the spatial redistribution of the population and the settlement patterns associated with them.

Within this broad field of research the following areas would require attention:

a) The different modalities of agrarian development existing in the countries--and in regions within them--their manpower capacity absorption and the rural-urban and intrarural migrations.

b) The identification of the different types of family which result from the social rural heterogeneity, of the changes introduced in them by the diverse modalities of agrarian development and the influence which these different types of families have on female labor participation, the determinants of fertility and the micro-social aspects of migration.

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[2] See Memorandum on "1. Interrelationship of Population Policy and Aspects of Development," submitted to this same meeting.

c) The settlement patterns of the rural population, in relation to the intra-rural and rural-urban communications, as well as in relation to the access of the population to social services and its effect on the demographic natural growth, the agricultural labor market and the migrations.

2. Urbanization and industrialization. The process of industrialization in Latin America has been characterized by the location of the manufacturing industries in internal "centers" of development, particularly in the big metropolis, which maintain relations with its "periphery" contributing to create or increase the imbalances in spatial distribution of the population.[3]

At the same time marked heterogeneities arise in the industrial urban centers among capital intensive sectors and enterprises of advanced technology, enterprises with primitive organization and technologies and others with characteristics placing them in an intermediate position between the two extremes. There is also great inter- and intrasectorial differences regarding the manpower capacity absorption.

From the preceding the following research needs can be recognized:

a) The policies for investment and localization of productive activities and their actual and probable effects on the spatial distribution of the population;

b) the system of urban settlements, the distribution of basic services and migration;

c) within the urban centers, the study of how the level and characteristics of the industrial process lead to social and cultural inequalities, particularly to different types of families. After defining in a general manner these different types, it would probably be advisable to concentrate on those strata with comparatively high fertility and mortality levels, examining their relation to female labor participation, the role assigned to children, their norms and values, their access to services (especially health services), the use made of them and the effects of all these characteristics upon fertility and mortality.

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[3] A review of the studies supporting this assertion, is contained in Armando Di Filippo, "Desarrollo y Políticas Redistributivas de Población." PISPAL Central Unit, first draft. Mimeographed. August 1974.

Both in the rural and urban context it's necessary, in addition, to devote special attention to the differential impact of employment, remunerations, and subsidies, educational and health policies in the different regions and on different social groups, especially as they might influence nuptiality, types of families, marital fertility, mortality and migration.

All the research needs referred to above are related to the clarification of some of those unknowns surrounding the population/development relationship which in the case of Latin America are considered to have a more direct bearing on the population policy issue. But, as has been said before, this would clarify only one of the points that are relevant to population policy. In order to determine the most viable alternatives for action, it would be necessary to study, among other, the following aspects:[4]

a) The capacity of the political systems of the region to actually originate population policies. Within this subtopic some specific subjects to consider would be:

i) key situations for decisions leading to or impeding the adoption of population policies;

ii) actions undertaken or pressures applied by the different political actors committed to a given decision;

iii) position, homogeneity and action of the group or groups in government and of the public bureaucratic organizations vis-à-vis the problem whose solution is being sought through a given policy (perception of the problem, degree of mobilization which the government is capable of generating);

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[4] See PISPAL Internal Memo by Raúl Atria on "Estructura de Poder, Problemas y Políticas de Población."

iv) degree to which ideological controversy or on the means that occur at the political level in connection with the problem and the solutions being proposed and the moment and manner in which it becomes an issue within the political system.

b) Follow-up of the development and implementation of population policies, from the point of view of:

i) type and level of the public organization and services entrusted with their execution, control and evaluation;

ii) changes in the position of the political actors in different circumstances of the political system or in the different policy implementation phases;

iii) channelling of public resources towards the total or partial implementation of population policies;

iv) degree of integration of the objectives and the means of population policies within development planning (global and sectorial);

v) perception, attitudes and motivations of the specific policy target groups.

c) Influences and pressures exercised by external organizations and agencies (national, international, public and private) in order to get the government to adopt a determined course of action, analyzing what types of pressures or influences are exercised, how are they processed by the government and the rest of the political system and what are the responses vis-à-vis such influences and pressures.

The research needs laid down here raise a series of challenges to the social scientists of the region, both from the methodological and the substantive point of view. Methodologically, it is necessary to find the means for combining the macro- and micro-social aspects and the synchronic and diachronic analyses; it is also necessary to construct more refined analytical instruments to tackle demographic differentials (occupation, urbanization, for example). Substantively, there is need of developing concepts and hypotheses which would allow an interdisciplinary approach to the problem and of identifying those social aspects subject to manipulation.

To the extent that this would imply a new conceptualization of the social factors, which abstracts and combines the elements from reality in a manner different from that of the present disciplines, it could be said, carrying the argument to the extreme, that what is being attempted is the creation of a science of population.

If to these two scientific tasks, one adds that of transmitting the results arrived at, so that they may be utilized in the design, adoption, implementation and evaluation of population policies, the challenge looms indeed formidable.

Interrelationships of Population Policy and Aspects of Development; Social Science Research Needed for Population Policy; Social Science Research Capacity in the Developing World and Links to Policy

by

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National Economic and Development Authority
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October, 1974

I. Interrelationships of Population Policy and Aspects of Development

by

Gerardo P. Sicat

National Economic and Development Authority
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"The magnitude of population growth is important. A high population growth rate poses needs that take away vital and critical resources from the economic development effort. It magnifies problems of unemployment, the supply and quality of social services, poverty, income distribution and urbanization. Consequently, the achievement of the desired level of social and economic development becomes a considerably more difficult task.

"This complexity of the population problem in constraining the social and economic development of the country brings the issue within the immediate and long-run concern of development planning."

The preceding statements are taken from the Philippine Four-Year Development Plan FY 1974-1977 chapter on population programs. They demonstrate the basic reasons for the adoption of a conscious population policy that would "achieve and maintain population levels most conducive to the national welfare." The concern of the Philippines, therefore, is to relate levels of population (and its growth) to the capacity of the economy to provide more measurable welfare such as in terms of incomes and other material benefits. Economic development, on the one front, is designed to enlarge the availabilities of options for improved material and nonmaterial welfare for all citizens through food production, industrialization, and the expansion of commerce. Population is the principal denominator to all these benefits.

The concern of other less developed countries in this regard is dependent on different internal considerations. This is probably why in the last World Population Conference in Bucharest, many schools of thought emerged among the national participants.

There are also many circularities in the consideration of population and development policy. A "demographic" approach to analysis of population problems, for instance, has many implications on social and economic development policy. On the other hand, handling development policy issues and programs inevitably leads the examination of aspects of population policy. In fact, it almost outlines a profile of alternative investments for social services.

Also, and as implied by the quotes at the beginning, a network of problems arises in the consideration of population policy and development. The material benefits from development can, after all, be reduced in terms of a major denominator, the population level, in order to arrive at per capita material benefits. In this regard, there are many aspects of development, whether based on aggregative measures of economic performance, such as gross national product, incomes, savings, and consumption, or on specific details of services, e.g., rice production or consumption, schoolbuildings, houses, television and radio sets, or roads. The relevant per person measures have to be derived accordingly. These measures provide the stepping stones for the necessary preparations of programs and policy prescriptions.

II. Social Science Research Needed for Population Policy

The analysis of social science research activities needed for population policy would depend very much on the nature of the activities of population programs in different countries. It begins with the question of how much basic statistical information is available on population levels, population distribution and so on.

In some countries, the unavailability of reliable basic statistical numbers is an obstacle for the more sophisticated inquiries dictated by the social sciences. Of course, however, many social science disciplines have their own special techniques of handling specific problems. Thus, the lack of reliable basic information can still be made up for by substitute but quite reliable estimates of population and related information on specific regions. This falls under the pilot research approach.

In the Philippines, for example, a lot of discussions on social science research that can assist population policy have been undertaken in the last five years. Experts, in fact, are beginning to ask the question of what additional problems are to be met. This reflects that even as a basic set of researches on various aspects of population has been initiated due to an active population program, more problems have emerged and active research priorities have, therefore, to be devised.

This month, a group of experts on Philippine population research met in Manila for the following major ends: "(1) to analyze and assess past research in population; (2) to exchange information on current approaches and the latest findings in research bearing on population across the various social science disciplines; and (3) to attempt to identify priority areas for future population research." The point of the first two adjectives is that research has to be read, evaluated and disseminated if it should not be pointless at all. Then programs have to be monitored, their results assessed and analyzed as a guide to future programs.

It is expected that more definitive and accurate information on the foregoing points will be obtained when the full report of the experts' meeting is rendered. It must be pointed out, however, that the lot of research discussion had centered on the social and psychological aspects of fertility, the evaluation of current population programs, and the limits and effectiveness of economic demographic models. In this regard, some population research topics that have been indicated by population agencies and scholars in the Philippines are attached.

Also, the current annotation of actual activities on population research is of the following categories: (1) demography; (2) population and development; (3) population and social institutions; (4) social differentiation; (5) family planning; and (6) attitude and behavior change. Even in the more confined area of demographic changes, the surface has hardly been scratched. Many problems still require special attention, as also attached here.

On the matter of effectiveness of family planning programs, the discussions are on incentive and disincentive schemes for the program, alternative types of service points, decentralization of program control, and active involvement of local leadership. All of these center not on demographical problems but on problems of public administration and political, sociological, and psychological analyses.

There are also some aspects related to cross-cultural activities. For instance, basic theological values are needed to be understood in this context. This is so that population programs can be truly responsive to the felt needs of the population, in particular, as they apply to Moslems, Christians (specifically the Catholics), Protestants and other sects.

ANNEX "A"

POSSIBLE TOPICS FOR POPULATION RESEARCH

I. Research in Fertility Control

Research along this line has high practical utility in view of population pressures on development. The following topics, however, are just general headings, and specific research questions will need to be studied in the context of previous research.

A. "Natural" processes affecting fertility:

1. Population-related cultural values;
2. Population-socialization;
3. Sexual practices and family relations.

B. Planned fertility control:

1. Management of population programs;
2. Delivery systems for family planning and related services;
3. Laws regulating fertility;
4. Population-communication;
5. Population-education.

II. Demographic Research

The following are needed for overall planning and interpretations of trends

A. Accurate estimates of rates and trends; projections
B. Interpretations of trends; socio-economic modeling.

III. Other Population Research

The following topics border on other research areas:

A. Population and urbanization
B. Migration, local and international
C. Social inequality and ethnic balance
D. Population and environment
E. Population and the labor force as this relates to socio-economic phenomena.

ANNEX "B"

ILLUSTRATIVE LIST OF RESEARCH PRIORITIES

a. Improvement of the national vital registration system to usable levels, on at least a sample registration scheme which will provide adequate correction factors for underregistration.

b. Research on mortality, especially to establish satisfactory estimates of the crude death rate and other mortality measures and to provide improved life tables.

c. Research on the implications of population projections for urban planning, national development planning, regional planning, manpower planning, etc.

d. Comparative analysis of high- and low-fertility areas to guide policy on future fertility decline.

e. Behavioral research on what makes the Filipino act the way he does in the realm of marriage, family formation, childrearing, and other events of the life cycle.

f. Policy research to guide administrators/political leaders/ POPCOM in the formulation of a "beyond family planning" program that integrates policies relating to non-fertility aspects of the population, manpower, migration, integration of women into economic, social, political spheres.

g. Comprehensive evaluation framework for assessing the effectiveness and the problems of the population program, operating independently (at least in part) of the POPCOM.

h. Qualitative process analysis of population program management and functioning.

i. Continuing experimental and field studies to test the relative effectiveness and efficiency of innovative strategies for disseminating and popularizing family planning:

   - incentive and disincentive schemes
   - alternative types of service points
   - decentralization of program control
   - active involvement of local leadership

j. Studies of the effects of various population control programs--family planning, population redistribution, dispersal of industries, growth centers--on individual and family welfare.

III. How Well Are Needs Being Met? Social Science Research Capacity in the Developing World and Links to Policy

The social science research capacities of developing countries vary on many aspects. These include the initial endowment of scholars, the previous investments in educational institutions and intellectual development, and the relative scarcity of available scholars. Another aspect may be the appreciation of research activities by the national government as well as by external research institutions.

On these points, the differentiation of research and supporting activities undertaken by various institutions in developing social science research capability becomes very important. An excessive desire for action-oriented types of programs oftentimes leads to neglect of institution-building. This is to some extent more important at the early stages of research in particular countries. It is an important area of development for less developed countries than would normally be appreciated by those undertaking action-oriented programs.

It is very essential, therefore, to continuously build institution-building components into the programs of research. The social science research capacity of any country depends so much on this.

In the Philippines today, as an example, one can argue that the level of institution-building has reached a high point to other less developed countries. There is still dissatisfaction over the current level of science research capacity, however, because it can be somewhat built further. A lot still can be undertaken with the enormous amount of talent in the country. Thus, the number of people directly involved in useful research must be increased because there are just too many research problems for investigation.

Also, the capable researchers are normally those already absorbed in government work, staff work, or administrative work in universities and research institutions, and, sometimes, into active government work. This points to the need for developing greater social science research capacity. It additionally emphasizes the institution-building component in the actions of donor agencies.

As to the linkage of social science research to policy, there is the danger that all policy-oriented research should be undertaken. One can argue for a more generalized approach here because it is very difficult to just pinpoint a policy-oriented research. Sometimes, some so-called policy research studies are shallow in findings while basic researches oftentimes viewed as "academic" tend to have a much larger impact on the action of policy matters. For instance, policy makers may disregard the message of econometric models in decision making, whereas, without them, there occurs a complete void in information that policy makers critically need.

There is then a need for a good balance of research priorities. It is not only the obvious that should be undertaken but also the least obvious. This least obvious can be undertaken only by a sophisticated research capacity that ought to be built.

Participants' Memoranda

International Agencies

Canadian International Development Agency

September, 1974

Canadian International Development Agency

by

André Lux
Special Advisor (Demography)

Having only a short time at my disposal to prepare a memorandum on social science research needs for population and development, I shall limit myself to a few points related to the perception of these needs. In Canada, IDRC is currently involved in joint research programs with various national institutes throughout Asia, Africa and Latin America and will give all required information on these programs.

1. Data collection. The World Population Plan of Action recommends that a census be taken in each country between 1975 and 1985. Huge amounts of money have already been disbursed by donor agencies for this purpose in the last few years, and much more is expected to be spent during the next decade. Now, censuses in LDCs are much too expensive for the poor quality and inaccuracy of data they provide (age reporting, for instance). Sample surveys have many advantages as compared to census: less expensive; more accurate; use fewer and better trained collectors; wider coverage of relevant variables in related fields of social sciences. Therefore, there is a need to spread knowledge and information on how to build adequate samples, according to various human settlement patterns.

To argue that samples can only be drawn out of preexisting information provided by a census is to forget that both census taking and sample surveys require a listing of all human settlements to be covered either way. Besides sample survey techniques, there is an urgent need for simple devices to organize and run vital statistics. IDRC has launched a pioneering study on current obstacles in this field in 13 Francophone African countries.

2. Grass-root level approach of fertility dynamics. Economic demography has often been built along macro-models, using questionable official figures (of agricultural production, for instance). Studies made 20 years ago showed dramatic population/land ratios with bare subsistence levels among peoples who, after growing by more than 50% in the meantime, have not died out today, but still survive at the bare subsistence level! Is this subsistence level that flexible? What determines the surface of land under cultivation per household--mere availability of land, or a poor technology which prevents people from using all available land and thus induces them to proliferate? A field study made in rural Rwanda from 1954 to 1959 clearly demonstrated that the surface under cultivation increased in straight proportion to the size of the households, so that the poor diet could not be explained by overpopulation. Such conclusions resulted from patient and protracted observations on the field--a rare event indeed.*

This field-work approach seems to be needed to really come to grasp with the behaviour of those millions of people who are very poor, seem to be short of land and/or other sources of income, go on nonetheless, breeding many children, and cannot, however, be assumed to be systematically irrational. Much more should be known about the rationale of their behaviour. To do this, we need to go much further than the usual KAP surveys, with new investigations into rural household economics, small community anthropology, and cultural psychology, all of which are rather underdeveloped sectors of our sophisticated social sciences, stuck in the mud of their mathematical pretentions and dubious rigor. A better insight into the rationale of fertility behaviour is indispensable to design policy measures aimed at decreasing fertility and improving the standard of living.

Among the topics that will be covered under this heading, cultural psychology, with a good anthropological backing, should look into the culturally perceived significance of child-bearing for rural and urban poor women, in relation to their social status and their unconscious and conscious aspirations. The easy-made inference from increasing abortion, to felt need for contraception should be checked, in view of abortion trends in countries like Sweden, where contraceptive services are readily supplied. In other words, the mere increase in abortions in the developing countries does not ipso facto allow them to think that improvements in the supply of contraceptive services will meet with success.

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*Ph. Leurquin, Le niveau de vie des populations rurales de Rwanda-Urundi, Louvain 1960, p. 122 and ref. cited.

Efforts should be made, through interviews and other methods, to try and compare present standards of living with those prevailing in the same communities, say, ten years ago, when the population was 20 to 25% smaller. Cohorts of young married couples should be followed up at regular intervals to test how they adapt to the increasing number of their children, and to make a sort of cost-benefit analysis of it. Are young children an asset to their parents, and if not, are they still perceived as such, and why?

3. Whatever progress in knowledge is gained from this micro-approach, it should be supplemented by a critical review of some firmly rooted conclusions of the macro-approach. For instance, it is currently admitted as evidence that population increase requires a proportionate share of "demographic investments," which reduce the capacity for growth in per capita GNP. In reality, however, to what extent does population increase really foster the corresponding demographic investments? Have schools, maternities, hospitals, etc. been increasing at the same rate, particularly in rural areas? If not, what is hampering more rapid economic development? Anyway, in this case, population increase cannot be made responsible. Moreover, what proportion of social investments have been done while population was increasing, and would not have been done otherwise? More generally, a serious factual study should be conducted on the possible relationships between the patterns and amounts of sectoral and geographical investments and population dynamics, both in terms of fertility, mortality and migrations.

4. From a policy point of view, it is urgent to know more about the factors which may contribute to a change in fertility behaviour. William Rich and James Kocher have presented some facts in support of the hypothesis that fertility decline results from improved economic and social conditions. We need to push further ahead beyond this sketchy initial stage.

Firstly, the mere concomitance of decreasing fertility rates on the one hand, and better land tenure and/or less unequal income distribution, etc. on the other hand, is no proof of a causal link. This link should be investigated both at the grass-root level (see supra), and through systematic and large-scale comparative multi-variable analyses. Many more factors of "modernization," indeed, must be entered in the model. It is not at all evident, for instance, that people must already be enjoying a higher standard of living to curb their fertility; prospected improvement may be a more important factor. Material well-being may well not be the sole lever of change, and factors such as political consciousness may play a role. It is important not to eliminate the variables which do not lend themselves, at least easily, to quantification.

Secondly, there is the important question of the pace at which various factors bring fertility to a decline. The rapidity with which fertility has been declining in a few countries or regions is a new phenomenon. Why and how so rapid a change, when compared to previous declines in Europe and North America? What role have family planning services played in this decrease? They are said to have accelerated it; what evidence is there in support of this assertion? If so, it should be possible and interesting to study the ways people are responding to family planning agents in countries with previously decreasing fertility, as compared to countries with no such decrease.

5. Because of the political sensitivity of population programs, the Bucharest Conference, viewed as a privileged place of confrontation between political leaders of rich and poor countries, in the light of the past twenty-five years of efforts by the rich countries to introduce family planning in the poor countries, should be taken seriously and studied as such. To what degree have the leaders of the Third World been sensitized to the need for urgent action in the field of population? To what extent has the strategy of urging a new international economic order included a sense of concern for the population variable or, on the contrary, eliminated it? Has Bucharest displayed "un dialogue des sourds" in matters of population? If so, why, and what are the practical implications for future policy orientations and strategies?

6. Since population programs are not to be conducted in isolation, but effectively integrated into broader development programs, there is an urgent need to study the philosophy of such integration, and practical ways and means to achieve it. It is not enough, indeed, and may even be wrong, just to look at how to use sectoral development agents (union leaders, paramedical people, cooperative managers, etc.), and train them to

play the "classical" role of a family planning propagandist, as a sort of overtime responsibility. If changes in reproductive behaviour result in a complex way from participation in various channels of social change and modernization, then the job of trying to accelerate these changes in reproductive behaviour within the very process of global change at the community or wider level, must at the limit, become fully mixed into the broader responsibilities of the agents concerned. How to do this is not an easy question to answer. In this respect, it would be useful to look at the program of community development in poor boroughs of Cali, Colombia, where family planning has become a part of a general educational effort at responsible self-help. After a few years, the average number of pregnancies has dropped from one per year to one per nine years. To what extent this striking performance must be attributed to the educational and spiritual input of the so-called natural (temperature) method, remains to be studied.

Anyway, the problem of integration just outlined, seems to be of much higher priority than the often stressed one of better management of family planning programs.

The Ford Foundation

October, 1974

The Ford Foundation

1. Donor agency perception of knowledge needs, examples of kinds of social science research on population and development that are and are not supported by the Ford Foundation; probable future trends of support.

The Ford Foundation supports two categories of research on population in which the social sciences are involved. The first is social science research as it relates to population policy as part of the development process. Under this heading the Foundation supports a broad spectrum of research as well as training. Only infrequently does the Foundation finance discrete research projects aimed at a particular policy objective. The typical Foundation grant is for the support of university-based population centers, institutions such as the Population Council, competitions, and networks to facilitate policy-oriented social science research. Its support is program-oriented, rather than project-oriented.

All the Foundation's activities in the developing world are the responsibility of its several overseas offices. In its grant making in the developing world the Foundation has provided support for a wide variety of institutions engaged in social science research relevant to population policy, as is described in section 2, below.

An exception to the Foundation's usual policy of development of research capacity rather than support of particular research projects is a series of "Second India Studies" aimed at evaluating problems in sectors of the economy and in specified regions to be faced by 2000 A.D. when the population of India is projected to be twice its present size. These studies on the consequences of population growth in such areas as agriculture, water supply, urban planning and energy resources bring into the population studies arena experts in a variety of sectors of development planning.

From its budget for support of training and research activities in the United States and other countries of the industrial world, the Foundation has provided core support to some fifteen university-based population studies centers that have sponsored extensive social science research by faculty and graduate students. Much of this research has been in collaboration with scholars from the developing world. The Foundation has given special attention to the interrelationship of population and economic variables, supporting the macro-economic research of such scholars as Simon Kuznets, Alan Kelley, and the micro-economic studies of the National Bureau of Economic Research.

In collaboration with the Rockefeller Foundation, the Ford Foundation has for the past four years sponsored a competitive program of awards in support of social science and legal research related to population policy. Awards have been made to scholars throughout the world.

The second category of social science research on population supported by the Ford Foundation is outside the terms of reference of this conference. It is part of an effort to help improve the effectiveness of population programs and consists of short-term, action research focussed on the operations of family planning programs. In this work we place special emphasis on encouraging the linkages between administrators of family planning programs and management institutes in the developing world, as exemplified by the activities of the International Committee for Management of Population Programs (ICOMP), and evaluation research and experimentation as carried out by the International Committee for Applied Research on Population (ICARP).

In dollar terms the Foundation's support for all social science based population studies is relatively small, as is indicated in the following table which also gives estimates for expenditures by the Rockefeller Foundation and the Population Council. These three foundations probably provide 90 percent of all private funds dedicated to the support of non-biomedical population research and training.

Along with its other programs Foundation support for this field is expected to decline in the future because of financial exigencies. Within declining budgets, however, the Foundation expects to put special priority on encouraging the developing capacity for social science research in the developing world.

Commitments to Research and Training in Population Studies by Major U.S. Foundation Sources

($ millions)

	1960	1965	1970	1973
Ford Foundation*	†	3.7	2.7	2.2
Rockefeller Foundation*	†	†	1.3	1.6
Population Council	0.3	1.4	1.9	2.0
Total	0.3	5.1	5.9	5.8

2. Examples of major programs and institutions in the developing world supported by the Ford Foundation that are currently or potentially engaged in social science research on population and development.

A number of major institutions can be listed on each continent that are actively or potentially engaged in relevant research. Latin America has a particularly strong group of institutions engaged in social science research, notably the Colegio de Mexico, with its emphasis on economic and demographic studies, and a group of institutions that have formed a special collaborative network for population research under the title of PISPAL (a memorandum on this program is attached hereto). The list of institutions supported in Asia includes the Pakistan Institute of Development Economics, the Indian Council of Social Science Research, the Bangladesh Institute of Development Studies, the University of the Philippines Population Institute, the Philippine Social Science Council, the Demographic Institute of the University of Indonesia, and the Korean Institute for Research in the Behavioral Sciences. In the Middle East, Hacettepe University in Turkey, the American University in Beirut and the American University in Cairo have received Foundation support for social science work in population. The Foundation has not so far been a major contributor to institutional development related to social science research on population policy in Subsaharan Africa, but may well be moving in this direction. For example a small grant program in East Africa will be directed to the support of young scholars just beginning their academic careers to enable them to conduct policy-oriented multidisciplinary research on national development issues.

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*Not including grants to the Population Council for population studies.

†Less than $100,000.

The Ford Foundation has helped support a number of networks engaged in comparative research on policy relevant topics in Asia. One is the Organization of Demographic Associates (ODA) established in 1965, comprising seven Asian centers in Korea, Taiwan, the Philippines, Indonesia, Thailand, Singapore, and Malaysia and cooperating centers in Japan and the United States. A second is the Council for Asian Manpower Studies (CAMS) concerned with studies of employment in Asia, with an institutional membership extensively overlapping ODA's. The newest of such networks is a Committee for Comparative Behavioral Studies on Population centered in the Korean Institute for Research in the Behavioral Sciences which has taken over responsibility from the East-West Center for directing a multinational comparative study of the perceived value of children.

In addition to the worldwide Rockefeller-Ford research competition, the Ford Foundation is helping to support a number of small competitions that are designed to fit national and regional needs for research encouragement. Attached hereto are brief descriptions of two of these competitions, in Brazil and in Southeast Asia. The latter is supported jointly by IDRC. A similar program for Mexico will be instituted via a grant to the Mexican Population Association.

3. Programs/institutions that are candidates for joint or multiple agency funding.

The Ford Foundation has long and favorable experience with joint financing of population programs. It has joined with such agencies as the Rockefeller Foundation, IDRC, UNFPA, and the Population Council in such endeavors. A number of potential candidates for joint funding are contained in the background papers for Session 5. In addition, the paper on Strategy for International Agencies prepared for Session 4 contains a number of suggestions for the possible establishment of new institutions for social science research on population policy. These are ambitious and problematic but may merit some consideration during this conference.

Attachments

ATTACHMENT A

Regional Program of Social Research on Problems Relevant to Population Policy in Latin America (PISPAL)

At the first Bellagio meeting on population held in April 1970, the paucity of social science research on population issues in the less developed countries was identified as an important obstacle to the design and implementation of more effective population policies. Responding to this need, the staff of the Ford Foundation's Office for Latin America decided to explore the possibility of developing in the Latin American region a program of comparative social science research on problems relevant to population policy. A group of leading Latin American social scientists was invited to consider designing and organizing such a program. As a result of their efforts and initiative, a network of Latin American social science centers has now come together to collaborate in multi-disciplinary research focused on issues broadly related to population dynamics and the formulation of national population policies. The new regional program is best known by its acronym, PISPAL.

Genesis of the program

Although the initial invitation was issued by the Ford Foundation, responsibility for the program's formulation and organization rested from the outset with the Latin American scholarly community. Following a series of consultations and preliminary meetings with Latin American social scientists, an organizing committee for the program was selected, comprising Dr. Carmen Miró, director of the Latin American Demographic Center (CELADE) in Santiago; Dr. Victor Urquidi, president of the College of Mexico; Dr. Candido Procopio Camargo, director of the Brazilian Center of Analysis and Planning (CEBRAP) in São Paulo; and Professor Mario Rubirosa, then a senior researcher at the Center of Urban and Regional Studies (CEUR) of the Torcuato Di Tella Institute in Buenos Aires. Dr. Gerardo Gonzalez, a social psychologist on CELADE's staff, acted as secretary of the committee. Dr. Ozzie Simmons, then program advisor in population and social science in the Ford Foundation's Santiago field office, also participated in the meetings of the organizing committee.

As an early step, the organizing group commissioned Dr. Gonzalez to visit the leading social science centers in Latin America for the purpose of reviewing the state of population-related research in the region and assessing the capability and interest of each center in participating in a collaborative, regional research effort. In mid-1971, Dr. Gonzalez visited thirty-one centers in eight Latin American countries. On the basis of his report, eight centers were selected as founding members of the new PISPAL program: CEUR: CEBRAP; the Center for Studies of Population Dynamics (CEDIP) of the University of São Paulo; CELADE; the Latin American Faculty of Social Sciences (FLACSO) in Chile; the Division of Population Studies of the Colombian Association of Medical Faculties (ASCOFAME); the Center for Economic and Demographic Studies (CEED) of the College of Mexico; and the Institute of Social Research of the National Autonomous University of Mexico. In selecting these centers as the founding members of the proposed regional program, the organizing committee was guided by several explicit criteria, including the demonstrated capacity of each center to conduct social science research, the breadth and quality of staff resources, and a willingness to make a serious institutional commitment to the program and to research themes relevant to population policy.

Subsequently, in consultation with the eight founding centers, the organizing committee defined the structure, decision-making mechanisms and operational framework of PISPAL and drew up a set of basic research priorities for the initial phase of the regional program. In April 1972, the purposes and modus operandi of the program were formally presented to a meeting of potential donor agencies assembled in New York City. Also presented was an estimated budget for the first two years of the program, which totalled approximately $650,000. A consortium of private, national, and international agencies agreed in concert to cover the costs of PISPAL during this initial two-year period. The PISPAL program officially began operating on March 1, 1973.

It is significant to note here that the PISPAL program was not built on new institutions or new clusters of researchers specially created to work on population. Rather, it capitalized on the accumulated social science capacity in the region and on institutions already active in research. The PISPAL program, in sum, grew out of Latin America's existing infrastructure in the basic social science disciplines--sociology, economics, political science, demography, et al.--

which had been painstakingly developed over more than ten years with the assistance of UNESCO, the Ford Foundation, the Rockefeller Foundation, and other external donor agencies.

Structure of the program

Formally, PISPAL functions under the auspices of the Latin American Social Science Council (CLACSO), a federation of national centers that brings Latin America's social scientists together in an annual assembly and in a number of substantive working commissions, including a Commission on Population and Development. PISPAL is officially registered as a sub-group of that Commission. Nevertheless, the program operates with full autonomy. The direction of PISPAL, including decisions on policy, membership, and the allocation of research funds, is vested in a Program Committee comprising one representative of each member center. The Program Committee meets semi-annually to define the broad policy guidelines for PISPAL and to select those research proposals that will receive program funding.

At the working level, coordination of PISPAL rests with a Central Unit, specially established to serve as a secretariat, liaison office, and research resource for the program. The Central Unit consists of a multidisciplinary team of researchers and research assistants with competence in sociology, political sociology, economics, demography, and urban and regional studies. It was decided by the member centers to locate the Central Unit at CELADE, where it could take advantage of CELADE's professional staff and its rich storehouse of population data for Latin America.

The Central Unit has been assigned multiple functions in the PISPAL program. These include (1) overseeing an inventory of research in Latin America relevant to population policy; (2) evaluating the research proposals submitted to the Program Committee; (3) providing technical assistance to member centers and others in the formulation and implementation of population research projects; (4) identifying priority research areas for PISPAL; (5) coordinating the various research projects conducted under the PISPAL umbrella; (6) exploring the theoretical and methodological issues involved in multidisciplinary studies of population dynamics and policies; and (7) promoting collaborative research among PISPAL's member centers.

In actual practice, the activities of the Central Unit were for a time out of phase with the rest of the PISPAL program. Although the Central Unit was to play a key role from the outset, in fact it was not brought up to full staff strength until March 1974, a year after the PISPAL program had been launched. Major difficulties were encountered in recruiting Latin American social scientists with appropriate competence and experience.

As a result, the Central Unit did not begin to carry out its full range of functions until very recently, and PISPAL's research endeavors during the first year were not as sharply focused and coordinated as they otherwise might have been.

Another PISPAL mechanism, which will be initiated later this year, is a series of workshops and seminars bringing together researchers working in the same thematic areas. The workshops will serve as a vehicle for coordinating research in progress and exploring common theoretical and methodological problems. The seminars will be a forum for the presentation of completed research results. The final publication of PISPAL research will rest with the member center where each project is carried out. If this system proves insufficient for an adequate dissemination of PISPAL's research product, alternative publication mechanisms will be considered.

There is still some question about the optimal size and outreach of the PISPAL "model." It was originally envisaged that additional centers would be admitted to full membership status if they could offer evidence of sufficient staff capability and a willingness to make the necessary institutional commitment to the program. In the meantime, centers with interests paralleling the PISPAL program might loosely affiliate themselves with the enterprise in the status of "associates." Three new centers have obtained such associate membership during the past year, and a number of others are under consideration. The PISPAL Program Committee, however, has not yet taken a final decision on the extent to which the current core of member centers should be augmented. The addition of new member centers with research interests relevant to population policy would probably make PISPAL more broadly representative of the diverse approaches, ideologies, and research "styles" now present in the Latin American region. At the same time, if the membership is expanded unduly, the program could become organizationally unwieldy and unworkable.

A second question now under debate is the degree to which the PISPAL program and its financial resources should be opened up to individual Latin American researchers who are not affiliated with a member center. This year, the Program Committee made one research award to a scholar unconnected with a PISPAL member institute. But it has yet to be decided whether this lone exception will become in the future a systematized practice of PISPAL. If PISPAL's research funds are indeed to be made available to non-member centers and individual researchers around the region, a more formal mechanism will have to be devised for equitably apportioning these program monies among diverse applicants.

PISPAL's research activities

To date, nineteen research projects have received financing under the PISPAL program. Since few of the studies funded have yet been brought to completion, it would be premature at this time to attempt an evaluation of PISPAL's initial research effort. Superficially, at least, the individual projects underway seem to be a varied and somewhat disconnected assortment. Examples of approved topics include the role of political and intellectual elites in the formulation of population policy in Chile; the relationship between changes in the structure of rural employment and migration patterns in Argentina; the effects of differing urban structures and systems on "marginal" populations in Brazil; the interrelationship among the changing labor market, migration, and the development of trade unionism in Argentina; the effects of different development strategies on population dynamics and population policies; and the effect of rural health services in Colombia on fertility and migration. Little research of a comparative or collaborative nature has yet been undertaken.

In part, the heterogeneity of the first group of projects stemmed from the desire of the Program Committee to get PISPAL moving as quickly as possible. Thus, many of the first projects supported were studies already in progress at member centers, which required only a modest financial input for their completion. To give more order and focus to PISPAL's research efforts, the Program Committee has now delineated three areas of research concentration for the member centers: agrarian structure and population; urbanization and population; and political systems and population policies. These categories are probably still too broad if PISPAL is to produce over time a coherent and cumulative body of research. However, the Program Committee is confident that as the work of the Central Unit moves into high gear, and as researchers are systematically brought together in the projected series of workshops and seminars, PISPAL's research will take on increasing focus and definition.

The problem of research definition is not, of course, unique to PISPAL. Governments, social scientists, and donor agencies are wrestling everywhere with the question of what properly is population policy research and what variables are most germane to an understanding of population dynamics. There are no standard formulas at hand and time will be needed for PISPAL to sort out its own definition of relevant research areas. The problem is complicated by the play of conflicting theories and ideologies in Latin America. Marxists and structural-functionalists do not define their research universe in the same way. And both schools are clearly present and grappling in the PISPAL arena. One cannot expect them to arrive at a workable synthesis overnight.

Operationally, each research project submitted to the Program Committee is subjected to rigorous scrutiny by the Central Unit and two member centers before it is approved. Where proposals appear to be thematically interesting but methodologically or theoretically weak, they are returned to the applicants for revision. Staff of the Central Unit may provide counsel and technical assistance in the reformulation of these proposals. Although the procedures for evaluating research projects are reasonably stringent, it has been suggested that the decision-making mechanism may be too much of an "in-house" affair. PISPAL is now considering a system of outside, independent readers to assist in the evaluation process. However the present system is revised, what is of primary importance in the PISPAL model is that the decisions on research priorities and individual research projects are being taken not by foreign donor agencies, often far removed from the scene, but by social scientists working in their own national settings.

Linkages to policy makers

It is not the basic purpose of the PISPAL program to feed research directly into policy-making channels. Nor is it intended that PISPAL produce research that is directly and immediately "action-oriented." Rather, PISPAL was designed to explore and illuminate some of the fundamental relationships between economic, social, and political variables and population phenomena that are relevant to population policy. In other words, it is hoped that PISPAL's research over time will provide a broad body of knowledge and analysis that will permit policy makers to make more intelligent choices and to formulate more effective policies. But PISPAL itself is not conceived as a "policy-directed" program.

In similar fashion, PISPAL as a regional network does not attempt to establish working relations with governments. Individual member centers do indeed have links with government officials and agencies in their own countries, varying according to national circumstance and the nature of the governments concerned. But PISPAL, as a regional federation of academic centers, defines its principal role as a vehicle for research.

Financing of the program

Financing of the PISPAL program in its first two years has been shouldered by a group of five donor agencies: the United Nations Fund for Population Activities (UNFPA), the Canadian International Development Research Centre (IDRC), the Rockefeller Foundation, the Population Council, and the Ford Foundation. UNFPA's financing covers the total staff costs of the Central Unit housed at CELADE, in the approximate amount of $315,000 over two years. Remaining costs of the program, including the sum of $250,000 for direct research expenses, have been shared by the other four donors, as follows: $150,000 from the IDRC, $100,000 from the Rockefeller Foundation, $25,000 from the Population Council, and $50,000 from the Ford Foundation. UNFPA funds for salaries are channeled through a United Nations trust fund so that compensation and benefits of Central Unit Staff can be established on the U.N. pro forma scale. Financing from the other donors is granted through the College of Mexico, which is the seat of CLACSO's Commission on Population and Development. The College of Mexico manages the disbursement of these funds and provides the PISPAL Program Committee with the required financial reports for the donors. The Program Committee is responsible for providing an annual, narrative progress report to the donors on the status and accomplishments of the regional program. A single delegate monitors the program on behalf of all the donors, reviewing the research financed by PISPAL and meeting periodically with the members of the Program Committee. The first monitor was Dr. Simmons, of the Ford Foundation. When Dr. Simmons was transferred to Thailand, the member centers and the donor agencies asked Dr. Walter Mertens, of the IDRC, to take over the monitoring assignment.

In June 1974, representatives of all the donor agencies assembled in Mexico City with members of the PISPAL Program Committee to discuss accomplishments to date and plans for PISPAL's future. Although the donor agencies registered a number of questions and concerns about the program, to which PISPAL's Program Committee will respond in the near future, there was a general consensus that the PISPAL model has substantial merit. It is likely that the current tier of donor agencies, reinforced perhaps by new donors, will continue to support the program for at least an additional three years. It was decided that any further assistance to PISPAL over the longer term would be dependent on an in-depth evaluation of PISPAL's accomplishments by a specially-constituted visiting committee.

Nita Rous Manitzas
September 1974

ATTACHMENT B

Brazil Research Awards

In the late 1960's in order to promote academic interest in demography and to help create an independent Brazilian capacity for analysis of population phenomena, the Ford Foundation's Brazil office established a program of research awards and training fellowships. Training fellowships were awarded first (nationwide competitions in 1972, 1973, 1974, 1975), then research competitions were instituted; local demography courses, meetings and publications have since emerged.

There have been 2 research competitions to date and proposals are currently being received for judgment in January 1975. Seven research awards for work on fertility, migration and mortality have been made at the MA level, 17 at the professional level. It is too early to evaluate the success of the research competitions since most of the 24 research projects are still underway. However, staff have been impressed by the steadily improving quality of the research proposals and they are optimistic about the quality of the final products. There are now other agencies helping to develop Brazilian research capacity and rising interest from a number of federal and regional planning agencies; demography courses have sprung up in some universities without Foundation urging.

Administration of such a program can be rather complex but has become fairly routine after some experience; the general lessons learned are undoubtedly applicable to programs which might be established in other regions. There is a considerable volume of routine correspondence throughout the year, the program may need a technical advisor on at least a part-time basis, and the process of deciding among proposals can be delicate. The Brazil program has been guided since 1970 by a 5-member Brazilian advisory committee (CAEP), which represents the major disciplines involved (demography, economics, sociology), the regions of the country and major currents of thought about population matters in Brazil. Building on experience with previous research awards competitions, CAEP agreed to insure that:

a) The research competition is open to all applicants regardless of particular institutional affiliation.

b) The committee's official recommendations would be based on secret ballots.

c) Committee members with organizational links to a given proposal would abstain from voting and discussion of it.

ATTACHMENT C

Southeast Asia Population Research Awards Program (SEAPRAP)

The program (funded by IDRC and the Ford Foundation at just over $250,000 for 2 years) has five basic objectives:

a) to increase the amount and quality of research on population problems in the region;

b) to provide opportunities for more interested and qualified Asian social scientists to do such work;

c) to strengthen the research interests and sharpen the skills of young scholars by enabling them to carry on their own research projects with guidance and assistance, if necessary, from experienced researchers in the region;

d) to help identify promising candidates for advanced training in social science disciplines concerned with population problems;

e) to augment the flow of information about population research and its implications for policy and planning among social scientists and persons responsible for planning and policy decisions.

As currently designed, fifteen to twenty research awards (not more than $7,500 for 12 months except in unusual cases) will be made over a two-year period with preference given to small, sharply focussed projects. Screening and final selection of proposals will be done by a panel of Asian social scientists. The selection criteria have been defined to assure that the development of the awardee's interest and skill is given as much weight as the content of the proposed project. These social scientists will also serve as advisors and mentors to applicants who wish to have or seem to need help to improve research designs, data collection, processing, interpretation and reporting. The program also seeks to insure that all completed reports of acceptable quality are published, distributed to libraries, and research institutions as well as policy makers who might be expected to have an interest. The program may also succeed in identifying young faculty of government employees who would be especially promising candidates for further training. The program does not include funds for such training but could be useful in advising potential candidates and helping them find resources.

A number of Asian social science institutions were considered to administer the program but none was found to be fully suitable. Therefore, the program is being administered by the IDRC regional office in Singapore with an Asian serving as full-time director. He is presently seeking to identify and recruit the consultant panel, prepare and distribute announcements, receive and distribute proposals for screening, etc. An initial consulting group has been invited to provide counsel on basic guidelines, composition and functions of a Program Committee. The Committee (5-7 members representative of the major countries of the region and a range of social science disciplines) would formulate policy, screen, select and judge applications, provide technical consultation to applicants where necessary. If the program goes well, every effort will be made, in the second phase of the program, to identify an appropriate Asian institution for its administration. If there is agreement that the program should be expanded at the end of two years, other international agencies would be approached to share extended funding with IDRC and the Ford Foundation.

International Development Research Center

Canada

International Development Research Center

Canada

General Orientation

The Centre's research projects on social science research on population and development are primarily based in the Division of Population and Health Sciences, one of the four divisions of the Centre. The Population and Health Sciences Division's focus is on two interrelated elements in the development process: population dynamics and health of rural communities.

In general, to be considered by the Centre, a project needs to balance the following criteria, all of which are important and some of which may occasionally conflict with another:

1. The project has to be directed towards the understanding of important components of the process of economic and social development.
2. The project should yield results which may effectively enhance the process of economic and social development.
3. The project should put emphasis either directly or indirectly on the welfare of rural population.
4. The project, even if limited to one country, should be useful in one or more dimensions to other countries (either through new focus, development of new theories, testing of new methods, study of a new problem, etc.).
5. The project should be conceived and executed primarily by individuals or institutions from and in developing countries.
6. Depending on the situation, a project should be directed in varying proportion toward two objectives: producing sound scientific results and providing a learning experience.

Over the course of its existence, institutional building has not been a major activity of the Centre, although it has become increasingly concerned with the development of scientific manpower.

Population and Economic Development

Within the aforementioned criteria, social science projects on population and development evolve within the following context:

1. Economic development is a complicated process involving many dimensions which vary by country, culture and level of development.
2. Population variables are an integral part, both as dependent and independent variables, of the process of economic and social development.
3. Population policy thinking is "a baby born 200 years ago which has never grown up." A lot of confusion and unclear thinking, imprecision in definition and focus, uncertainty about the variables to be included, contradictions about their respective influences, etc. is characteristic of this area.
4. While policy-relevant research is a major criterion for IDRC support, it is recognized that the link with policy makers is frequently absent, or at best indirect. Much effort is required to enhance the dialogue between researchers and policy makers, and to work toward joint research programs that are meaningful for the planner. New institutional arrangements may be called for.
5. High quality research and intelligent discussion about population policies are possible only when a decent data base exists. Too often this is forgotten. At the same time, too little effort has gone into developing and adapting existing data to the needs of population policy research.
6. As in so many other areas of social science, fashionable change is too often mistakenly taken to mean new insights, with the consequence that instead of in-depth thinking, development researchers in developing countries are sometimes asked to jump on the bandwagon produced in developed countries.

Activities

To present the Centre's population projects, the classification proposed by the Ford Foundation is used in a simplified fashion. It should be noted that this classification is not absolute; several projects have overlapping characteristics. Furthermore, several of the action research projects are not pure social science projects. In addition to the projects listed, the Centre also provides funds for seminars, project development and related activities within the area of social science research on population.

1. Data Base Activities

Impediments to Vital Statistics (OCAM)
For the Organisation Commune Africaine Malgache et Mauricienne (OCAM), Cameroon, to identify all obstacles presently hindering the efficiency of the vital statistics services in 13 African countries, and thus formulate policies leading to the improvements sought by the governments concerned. (Countries studied: Madagascar, Mauritius, Rwanda, Gabon, Cameroon, Central African Republic, Chad, Niger, Dahomey, Togo, Ivory Coast, Upper Volta, Senegal).

Population Dynamics Survey (Central Africa)
For the Union Douanière et Economique de l'Afrique Centrale (UDEAC) in the Central African Republic, to support final studies in a longitudinal survey on rural population dynamics in that country, Gabon, Cameroon and Congo-Brazzaville, and a joint seminar to study policy recommendations.

Migration Volume and Determinants (Upper Volta)
For the Government of Upper Volta's Social Sciences Research Centre and the Department of Statistics, to compile comprehensive data on the volume and determinants of migration in Upper Volta.

Regional Demographic Surveys (Zaire)
For the National Institute of Statistics of the Government of Zaire, to carry out a demographic survey in three major cities, to measure fertility, migration and socio-economic variables, and to devise surveying techniques that may be applied in other African countries.

2. Theory and Methodology

Rural Population Migration (Central America)
For the Confederación Universitaria Centroamericana, Costa Rica, to study the nature and determinants of migration, particularly in rural areas, in five Central American countries (Costa Rica, Guatemala, El Salvador, Honduras and Nicaragua).

Rural Fertility Surveys (Latin America)
For the Centro Latinoamericano de Demografía (CELADE), Santiago, for comparative analysis, by ten research fellows in training seminars, of fertility data gathered from Costa Rica, Mexico, Colombia and Peru.

Value of Children to Parents (Asia)
For the Korean Institute for Research in the Behavioural Sciences, South Korea; the University of the Philippines; and Chulalongkorn University, Thailand; for a collaborative survey on the satisfactions and costs of children, and the motivations for childbearing in those countries; and for the Bogazici University, Turkey, to lay the groundwork for a larger study.

Infertility-Subfertility (Nigeria)
For the Universities of Lagos and Ibadan, to study, in rural and urban areas of Nigeria, the possible factors involved, such as socio-economic, clinical and pathological factors, in subfertility and infertility and recommend future approaches to the problem.

Household Budget Survey (Senegal)
For the Ministry of Finance and Economic Affairs of the Government of Senegal, to help carry out among Senegalese households a demonstration survey to examine the relationship of economic, social and demographic factors.

Fertility Levels and Differentials (Tanzania)
For the University of Dar-es-Salaam, to carry out jointly with the Government's Central Statistics Bureau a fertility survey in different regions of Tanzania, and to provide data comparative to those of the Zaire surveys.

Fertility Declines (Barbados)
For the University of Western Ontario, to determine the key variables, including the practice of family planning, that have resulted in a significant fertility decline in that country.

Changing Fertility Patterns (Brazil)
For the Centro Brasileiro de Analise e Planejamento (CEBRAP) in São Paulo, to carry out a survey of sociological and psychological factors affecting fertility behaviour in 12 areas of Brazil.

Changing Fertility in Bogotá (Colombia)
To the Social Demographic Studies Division of ASCOFAME, to analyze the data of 1964 and 1969 fertility surveys, and to evaluate the progress of a Latin American population through stages in family planning adoption.

Socio-Psychological Effects of Abortion (Singapore)
For the University of Singapore, to assess the effect of abortions on the mother and family unit with a view to motivating people to use contraceptive methods in lieu of abortion.

3. Action Research

International Committee for Applied Research in Population (ICARP)
To the Population Council, New York, for support of ICARP, a collaborative network of representatives from Latin American and Asian countries, to identify and pursue action research leads in population and family planning in developing areas.

Pilot Family Planning Program (Mali)
For the Government of Mali to support a two-year pilot scheme in Bamako, including establishment of clinics, training of personnel and a national statistical survey.

Evaluation of Family Life Education (Colombia)
To the Colombian Association for the Study of Population (ACEP) to evaluate the impact on people and community of a two-year program on family life education.

Pre-operational Family Planning Survey (Dominica)
For the Government of Dominica, for a study of the need and desire for a family planning program and for a program outline, to be carried out through the University of the West Indies.

Family Planning Program Evaluation (Jamaica)
For the University of the West Indies, Kingston, Jamaica, to enable its Department of Social and Preventive Medicine to evaluate family planning programs in Grenada, St. Lucia and St. Vincent, and formulate new directions for these programs.

Leaders and Population Policies (Mexico)
For the Instituto Mexicano de Estudios Sociales, to identify and study various groups of community leaders with regard to population issues, and devise appropriate means to enhance Mexico's recently adopted population policy.

Epidemiological Study of Rural Induced Abortion (Egypt)
For the University of Cairo, Egypt, to study the incidence and concomitant factors of induced abortion in a rural setting of Egypt.

Traditional Midwives in Family Planning (Thailand)
For Mahidol University in Bangkok, to enable its Department of Maternal and Child Health to test alternative methods of training granny midwives so that they may play a part in Thailand's national family planning program.

Maternal Health and Early Pregnancy Wastage (West Malaysia)
For the Federation of Family Planning Associations of Malaysia, to study the incidence, morbidity and mortality associated with an increase in induced early termination of pregnancy among Malaysian women.

4. Policy Research

Population Policy Research (Latin America) (PISPAL)
For El Colegio de Mexico in Mexico City, to support a program of regional research to help in the formulation of national population policies, being undertaken by a group of Latin American social science institutions.

Population and Development Policies (Latin America)
For the Centro Latinoamericano de Demografía (CELADE), Santiago, to study the development plans and strategies of Brazil, Costa Rica, Cuba and Chile, determine their demographic impact and compare the existing differences by means of policy variables.

Disincentives Study (Singapore)
For the University of Singapore, to study the attitudes of young Singapore families regarding disincentive measures to having large families and to elucidate the likely impact of the measures on future family formation.

Population Growth and Economic Development (Turkey)
For the Development Foundation of Turkey, to study the implications of existing and projected population growth as it affects the needs for additional housing, health care facilities, employment and educational opportunities, and economic development in general.

5. Training and Institution-Building

Population Association of Africa
It is hoped that this association will help develop an exchange of information and opinions between persons and institutions interested or engaged in the study of population in Africa, and that it will stimulate interest in population among other groups as well.

Population Research Support Program (Southeast Asia) (SEAPRAP)
To enable the IDRC together with the Ford Foundation to develop a program of one-year research awards for young Asian scientists to carry out studies on population questions.

Indonesian Demography Journal
For the University of Indonesia, to create a journal on demography which will expand population studies and provide an information link among the many universities in Indonesia.

Population Council

Institutional Capacity for Population and Related Social Sciences in the Third World

October, 1974

Population Council

Institutional Capacity for Population and Related Social Sciences in the Third World

The Population Council has been concerned for many years with the development of institutional capacities in the Third World for population and related social sciences. The Council will soon complete a two-year worldwide study of capabilities, needs, and opportunities for international assistance. The study refers both to the field as a whole and to those particular elements of action where the Council itself is involved. The aim of the study is to provide information and analysis on the basis of which international agencies may design and modify their own programs, and in a narrower, more selective manner, to provide guidance for future programs of the Council itself.

The institutional capacities to which we have addressed ourselves in the Demographic Division of the Council are those utilized (1) to train professional persons in demography and closely related elements of the social sciences, (2) to produce local and international knowledge of the determinants and consequences of population processes, and (3) to provide consultative and technical support for the formulation and implementation of population policies at national and local levels of social action. The flow of financial and professional resources into the creation of such capacities has increased rapidly in recent years, and although still infused by significant amounts of international assistance, the process has become increasingly one that is funded locally by government budgets for universities and specialized institutes. This is especially so in the utilization, as opposed to the creation, of local capacity for professional training and for consultation and technical support of planning bodies. Utilization of local capacities for the creation of new knowledge continues to depend heavily on external financing, due partly to the origination of research proposals abroad and partly to the underdeveloped state of problem formulation itself which fails to attract local government resources.

It is universities and autonomous institutes in developing countries that provide sustained outputs of trained personnel, research findings, and technical support services directed toward the solution of national population problems as no other institutions realistically can do. They plan a strategic role in opinion formation, professional development, and the systematic adaptation of knowledge to national needs and contexts. As part of a global network of intellectual exchange, they are usually receptive to external donors and to professional personnel.

Universities and autonomous institutes are able to influence national population policy formation by providing consultants, by conducting research "on demand," by evaluating national family planning programs, and by having faculty serve on government bodies charged with the examination of population as a factor in national development. A particularly important role for these institutions is the provision of seminars and short-term training to government officials to broaden their population awareness and to develop their basic analytic skills.

Institutional development is by no means a scientific process, nor are there universally applicable strategies. Different levels, types, and periods of support are needed at different institutions to reflect local needs. Criteria of success are not universal except in very general terms, and estimates of success must reflect local conditions. Some institutions may require assistance only to acquire some basic equipment, such as a working library, some operational research funds, and some supplementary salary support to launch a population program based upon already trained staff. The more usual case requires the services of an expatriate advisor to launch the program, along with funds to support library and curriculum development, to expand research programs, and to provide related training equipment. A key component of most institutional development efforts is staff development, or the provision of advanced training abroad for junior staff who eventually return to their home institutions to replace expatriate advisors.

Broadly speaking, the institutional development process is characterized in its early stages by large-scale external inputs of funds, supplies, equipment, and professional expertise, and much smaller local inputs for faculty salaries, housing, student support, space, and secretarial staff. Over time the relative inputs reverse themselves, so that at the end of the project, the program is staffed by trained nationals and is fully established within the host institution. External support can then be gradually limited to selective assistance in research and to some provision of consultative and informational services. Eventually such assistance too is expected to phase out, to be replaced by the normal mutually beneficial ways of intensive intellectual intercourse and cooperative research and training arrangements.

Within this broad process which offers scope for participation and support by a number of international agencies, the Council distinguishes three principal areas where it endeavors to make a distinctive contribution as follows:

Professional partnership is the most intensive and selective relationship involving consultation on research and technical matters, assistance in the recruitment of staff for an institution, placing Population Council staff at the institution for specific periods of time, inviting staff from partner institutions to visit and work at the Council, and undertaking joint scientific inquiries.

Fund-raising and grant-making activities involve several different types of relationships with donors and grantees. The Council administers funds that are granted to the Council specifically for institutions on behalf of the beneficiary institutions. In this way, funding by international donor agencies and private foundations has been facilitated and matched with specific needs of institutions. The Council also makes grants to institutions from its general purpose funds, although the volume of funding by this means is limited. Thirdly, the Council assists institutions in obtaining funds directly from donors other than the Council by participating as an advisor in program planning and bringing parties together where a mutual interest is evident.

Technical support services are provided by the Council to a wide range of institutions. These include administration of staff development programs through a Training Office; provision of books, equipment, and computer software; and the Council's general information program which includes publication of four regular periodicals and several books each year.

Looking to the future, it is evident that funding of core needs at institutions is a task to be shared among a number of international donors reflecting scientific, geographic, political, and other factors that determine which partnerships are viable. The total scale of such funding needs to increase on a global basis due to the growth in demand for personnel, knowledge, and consultative service that results from increased attention to population in developing countries. Not less than five million dollars annually should be committed to this task collectively by donor agencies over the next five years.

As local financing becomes strong, the main areas for continuing assistance will be staff development training, professional interchange on a visiting basis in both directions, technical support for the communication of techniques and ideas by publication, conferences, and research grants for the frontier areas of knowledge in different social and economic settings. Thus, the Council envisages an opportunity for productive long-term activity in the field of institutional development involving an interchange among professional equals funded multilaterally by direct and indirect beneficiaries alike.

Rockefeller Foundation

October, 1974

Rockefeller Foundation

I. Donor Agency Perception of Knowledge Needs

A. Kinds of Social Science Research on Population and Development That Are Supported by the Rockefeller Foundation

The Rockefeller Foundation (RF) has had a substantial and long-term commitment to the field of population which was formalized in 1963 when the Trustees established the present Population program and set as its goal the eventual attainment of population policies designed to encourage lower rates of population growth. A major component of the Foundation's strategy for realizing this long-term goal of world population stabilization has been the strengthening of social science population research as a possible key to understanding family-size decision making as well as the interrelation between population growth and economic and social development. Scientists, family planning experts, and government officials are increasingly aware that any successful effort to reduce fertility requires not only safer, more efficient methods of contraception, but also, and perhaps more importantly, concomitant economic, social and legal policies conducive to reductions in family size. However, the precise relationship between variables influencing family size and policy variables in different social and cultural environments is not clearly understood.

In the developing countries, the social science aspect of the RF Population program emphasizes three components: direct research support to individuals and institutions; the provision of fellowships for graduate training to prospective scholars; and the longer-range goal of strengthening social science research institutions at both the country and regional levels in Africa, Asia and Latin America.

The RF premise is that to obtain the end goal of responsible population policies requires the prior development in all countries of informed policy makers who recognize that trends in population growth and distribution need to be considered along with employment needs, resource availability, and social service programs in planning overall development strategies. There is a lack of understanding on the part of social scientists and policy makers in both developed and developing countries regarding the precise interrelationships between population and social, economic, political, and cultural factors. To alter this situation is neither easy nor accomplishable in a short period of time. However, by simultaneously focusing on the training of social scientists in population studies, providing trained researchers with the funds to permit them to undertake independent investigations of the role of population growth or distribution in the social and economic development processes in their country, and strengthening the research institutions where they will conduct their work, it is believed that over the long run an environment will be created which is conducive to the implementation of population policies.

Several additional premises underlie the implementation of the RF Population program in the developing countries. First, research conducted by indigenous social scientists is more likely to receive the attention of policy makers than research conducted by foreign scholars. Second, in many developing countries there is a lack of trained researchers, especially in the areas of theory construction and the design and analysis of large data sets (e.g., in the areas of sampling design, multivariate regression techniques, and model building). Analyses of census data, vital statistics data and random sample surveys are crucial for providing policy makers with basic information on which to formulate development priorities. Third, research and teaching institutions in developing countries need to be strengthened in order that those scholars who are well-trained can conduct their research activities without the need to hold additional jobs, and where the support facilities (library, computer, colleagues) are available to enable them to devote their energies to research and teaching of future population specialists. It is also important to recognize that regional institution-building may provide an important link between country-specific research institutions and international technical assistance agencies. Fourth, collaboration between scholars and institutions in developed and developing countries should be encouraged in order to facilitate the transference of analytical skills to scholars in the latter areas.

B. Kinds of Social Science Research on Population and Development That Are Not Supported by RF

Obviously RF does not support any particular research project or institution where an objective evaluation indicates that either the project goals will not be accomplished or, in some cases, the findings would be of limited utility. There are additional categories of activities which RF generally does not support because of funding limitations. While the RF strategy on a particular research project is to provide support for all operating expenses related directly to the study, including office equipment and supplies, no provision is made for general overhead costs. Single requests for support of library facilities, computer facilities, publication costs or data gathering which are not part of an RF Education for Development program or directly related to a specific research project are also declined. It is, however, recognized that these activities are often a vital component of long-range institution-building.

II. Examples of Major Programs and Institutions in the Developing World Supported by Donors That Are Currently or Potentially Engaged in Social Science Research on Population and Development

a. The Rockefeller and Ford Foundations' Program in Support of Population Policy Research. A worldwide competitive program has been jointly conducted for four years to encourage social scientific, humanistic, and legal research on population policy issues. To date, nearly 20 percent of the awards have been made to researchers from developing countries.

b. El Colegio de Mexico has received support since 1966 for its research and training program in the Center for Economic and Demographic Studies. Besides the training of Mexican and other Latin American graduate students in economics and demography, a substantial contribution has been made by this Center to the understanding of the interdependence of economic and demographic variables in Mexico.

c. In 1972 RF funded an internally-administered program for research on Unemployment and Human Resource Utilization in the Developing Countries. Several awards have been made to scholars and institutions in Africa, Latin America, and Asia, with the bulk of the funds going to the program of Joint Studies on Latin American Economic Integration (ECIEL) toward the costs of a multi-country collaborative research project on problems of employment and labor force absorption in Latin America.

d. Through its Education for Development Program, RF has encouraged and supported social science training and research on population issues and policies at the University of Ibadan, Nigeria; the University of Nairobi, Kenya; the University of the Philippines; Thammasat University, Thailand; and Gadjah Mada University, Indonesia.

e. RF is participating with other donor agencies in funding the Latin American Program of Social Research on Problems Relevant to Population Policy (PISPAL) which is supporting comparative research on population problems relevant to population policies in Latin America. PISPAL, in addition to providing research funds to member institutions, provides a structure within which comparative research projects are developed at member institutions in collaboration with PISPAL's Central Unit staff, and a forum for the exchange of information on theoretical and methodological problems through regional seminars and workshops.

f. RF also participates in funding the Council for Asian Manpower Studies (CAMS), an association of Asian scholars engaged in policy-oriented research on manpower and employment problems of Asian countries. In addition to organizing research projects, the working committees of CAMS bring together in workshops, seminars, and conferences, Asian scholars, professionals, and government planners concerned with manpower problems.

III. Programs or Institutions That Are Candidates for Joint or Multiple Agency Funding

Rather than summarizing some specific project(s), some of RF's perceptions regarding future priorities for social science research in population in developing countries are identified. While there are undoubtedly many new, innovative projects that would facilitate social science research on population and development, it is important to recognize that the basic needs are still the training of additional social scientists in population studies and the provision of research funds and institutional support to enable these researchers to conduct population studies in their specific country. This being the case, RF will continue to emphasize the training of social scientists from developing countries, the undertaking of a broader range of social scientific research studies related to population and development, and the strengthening of existing population centers and regional social science programs. The establishment of new population centers at major universities in developing countries and regional network organizations will also be encouraged.

Joint or multiple donor agency funding is generally most useful for: (1) large-scale programs necessitating more funding than a single donor is normally prepared to consider; (2) situations where too large a proportion of research funding from a single source appears inappropriate; (3) comparative studies involving several countries; (4) "network" or regional organizations; and (5) sharing of high-risk ventures. It is believed, however, that some consideration should be given to joint action in the following areas of perceived weakness.

a. In addition to the provision of graduate training for social scientists in population studies and the provision of research funds, it is necessary to provide social scientists opportunities for postdoctoral training. The rapidity of new theoretical and methodological developments in population studies necessitates continual updating of research capability. While this is true for scholars in the developed countries, it is essential for those from the developing countries who may not have had previous training in quantitative methods. Postdoctoral training could be conducted at either a regional institution or a population institute in a developed country.

b. Regional and international networks that facilitate the exchange of information between social scientists should be encouraged. In many cases interaction between scholars in developing and developed countries and representatives of foreign donor and technical assistance agencies is more effective when channeled through such organizations.

c. There is a lack of precision in theories relating social, economic, and cultural variables to family-size decision making, and, in turn, relating these variables to factors subject to policy manipulation. Similarly, in many situations an adequate data base to test and revise theories is lacking. Many current studies do not utilize quantitative data because of the costs involved in generating such data sets. The gaps between theory construction, testing, and policy implementation need to be bridged. Collaborative support by the donor agencies of large, comparative sample surveys (e.g., the World Fertility Survey) should be encouraged.

d. There is an underutilization of existing quantitative data sets, by social scientists in developing countries, including aggregate census data, samples derived from census data for individuals and households, sample surveys conducted by government divisions, and vital statistics data. This occurs, in part, because of the lack of quantitative orientation and skills of many social scientists and the lack of channels of communication between social scientists and government officials. Programs designed to open up lines of communication, including more careful attention to the dissemination of research findings need to be encouraged. A broader dissemination of the research findings in books and journals will contribute to information exchange.

Swedish International Development Authority

September, 1974

Swedish International Development Authority
Population Division

SIDA Activities in the Field of Social Science Research on Population

1. Direct SIDA involvement in the field of social science research on population has, so far, been relatively limited. Macro-level studies undertaken by other organisations, such as the IUSSP and OECD, have received Swedish support. In our view this field seems comparatively well covered by these and a number of other organisations and institutions.

2. The greatest need for additional and innovative social science research seems to exist within the behavioural sector. To fill this gap concerted action may be called for, but to our knowledge no co-ordinated scheme exists. We are aware that, for a number of reasons, a global programme similar to the WHO Expanded Programme in the field of human reproduction can probably not be established for behavioural research. We hope, however, that some kind of mechanism can be found to design, direct and co-ordinate research on "motivation."

3. SIDA does not have staff capacity to review relevant research proposals and it has proved difficult to find social science consultants familiar with the population field in Sweden. This fact has further limited our activities. However, over the years some social science research projects have been included in the population programmes supported in i.a. Pakistan, the Republic of Korea and Sri Lanka.

4. A major study in Pakistan: The Mass Communication Experiment, which had the following objectives: (1) to assess the result on the adoption of family planning achieved by a mass communication campaign using a variety of co-ordinated media, (2) to demonstrate the planning, development and implementation of such a campaign and (3) to assess the reach of the various media. The findings are published in "Mass

Communication Experiment--a Study in the Promotion of Family Planning in Pakistan" by Roland von Euler (Stockholm, 1972).

The most recent study supported is now being finalized in Sri Lanka in connection with a pilot project on "Family health education/service program in larger hospitals." It is a survey with a wide range of questions concerning family planning knowledge, attitudes and practice.

In the Republic of Korea SIDA has covered i.a. the building costs for the Research Center (Korean Institute for Family Planning).

5. SIDA welcomes the Ford Foundation meeting hoping that it may suggest some guidelines for expanded research in the social science/population sector. SIDA funds may be potentially available.

United Kingdom Overseas Development Ministry

October, 1974

United Kingdom Overseas Development Ministry

SOCIAL SCIENCE RESEARCH

1. For some time the UK Government has supported research institutes overseas, particularly the East African Social Research Centre at Makerere University, Uganda, and the Research Institute in the University of the West Indies at Mona, Jamaica. Grants were made for a number of years for social research carried out by the Sociology Department of the University of Zambia at Lusaka.

2. The pattern was for a block grant to be made to the institution concerned and periodic reports submitted to ODM and its predecessors on the research carried out. A good example is the Makerere Social Research Centre, Uganda, which received, until comparatively recently, a subvention of some £20,000 a year towards social research projects carried out in East Africa. It was the Makerere Social Research Centre which produced around 1958/60 the report on "Citizens in the Making," directed by Dr. Aidun Southall. This report was one of the very early complete studies of migration from the rural areas to Kampala and gained universal acclamation as being a model of its kind.

3. There were difficulties in administering such a programme as so much depended upon quality, interest and administrative ability of the staff and it was decided to wind up the block grant system and to offer the funding of a number of specific projects.

4. The major problem is how to develop the capacity in national institutions of the Third World for social research. This is bound to involve training as well as funding, together with the political will of University Authorities and Governments to give social research a higher priority than it has achieved in the past. An increase in demand for training would mean, in turn, that we should have to survey very carefully training capacity and possibly help the development of suitable training institutes in this country.

5. The ODM Economic and Social Committee for Overseas Research has supported social research over a number of years. The tendency has been in major schemes of social research to look at economic and social considerations together. Two good examples of such research projects are:

i) the research project being carried out by the University of East Anglia on the Nepal major roads system, which involves a host of social factors as well as economic factors;

ii) the research presently being carried out by the Development Planning Unit of University College, London, in Lusaka, Zambia, which is looking at the urban situation in an attempt to provide information on the social as well as the economic factors which are conducive to urban development and turning the migrant in the urban areas into a wage-earning tax-payer.

6. Under technical assistance we are providing the Director for Social Research in Rural Development at the Pan African Institute for Development, stationed in Cameroon. Two other examples of technical assistance are a rural sociologist to the Awassa Rural Training Centre, Ethiopia, and a research criminologist to assist the Jamaica Government in preparing their report for the UN Ottawa World Conference on Crime.

POPULATION AND DEVELOPMENT

7. As a donor agency the UK ODM is very conscious of the need for policy makers to be made aware of social science knowledge on population and development, particularly in all areas of development planning and in the implementation of aid programmes. Population and development programmes are seen as closely interlinked, and for this reason the contribution by the social sciences to the understanding of the social as well as economic dimensions of development is increasingly stressed. The UK ODM intends to increase its support for social science research in the developmental and population fields, as the need for such research becomes more apparent, and as suitable research proposals are brought before the ODM. The framework within which the UK ODM judges the significance and appropriateness of particular social science research projects has the object of achieving maximum practical benefits which can be of value in planning for effective aid programmes which are sensitive to the needs of the developing countries.

8. The UK ODM's perception of knowledge needs may therefore be categorised under the following headings, in relation to the kinds of social science research that are presently being supported. Future trends are indicated by the stress placed by particular areas of interest and concern.

i) The analysis of basic social and demographic variables which affect the population and development situation.

ii) The perception of that situation and what can or can not be done about it by:

   a) policy makers and

   b) communities, families and individuals who are the recipients of policies and programmes

The differences between (i) and (ii) may be quite marked because of the intervening variables of social and cultural values, customs and traditions which act as the perception filter between situations and events and the observers.

9. Under category (i) the UK supports the need to carry out demographic surveys, censuses and social and ethnographic surveys of basic data upon which further analyses may be built. Such surveys would cover demographic patterns and family formation, composition of households, family cycles and household budgets and micro-economics in general. These data give insight into both the population and development situations existing in any particular country or region.

10. The UK ODM has been interested in and in co-operation with the Institute of Development Studies, Sussex, has been working towards the development of social indices of development, which include demographic variables, in the attempt to move towards an objective measure of the social as well as economic dimensions of development within an aid programme increasingly focused on the need to tackle problems of poverty. The UK ODM recognises the wide concern expressed and the work being done by other donor countries and their academic institutions and by the United Nations Research Institute for Social Development, and would like to see further work done in this field, and on the improvement of basic data collection which would make such an index possible. An example of this kind of assistance offered by the UK ODM in the field of basic

data collection is a Post-Censal mortality and fertility survey conducted in Bangladesh with the help of British consultants through the Population Bureau. Another example is support given for a research project conducted by Professor Scarlett Epstein of IDS Sussex on the micro-economics of families in relation to population growth in a cross-country case study of rural areas. In that a range of social and economic factors affecting fertility decisions are covered, this study spans categories (i) and (ii).

11. Under category (ii) the study of the socio-cultural context in which development and population programmes are set, and its interrelation with population dynamics is of fundamental importance, and the UK ODM is keen to support such studies. These would cover both the determinants of population change, and the consequences of population change, particularly as they relate to the total socio-cultural environment. This includes (as outlined in 2 ii b) the values of the people regarding family and community life, and their own priorities in the improvement of "quality of life." The UK ODM has endorsed the UNESCO plan to initiate research in this area and is moving towards the recognition of the need for social science involvement in area studies before development programmes are implemented as well as afterwards. In this context the WHO "Acceptability" programme seems a constructive approach to implementation of family planning and population programmes.

12. The study of values is also the study of motivation which the UK regards as a priority area for social science investigation not so far studied sufficiently in depth. The UK would be reluctant to support more of the sometimes simplistic KAP studies (Knowledge Attitude and Practice), which served their purpose in the early stages of the study of motivation, but have been shown to have severe limitations within real situations. As in all other social areas, the attitude survey has drawbacks, and the explanation of why people do not always do what they say they will do is a most complex and ultimately most rewarding area of study, and one which must be increased, particularly in relation to family planning programmes. An example of the kind of study which the UK supports in this area of cultural values in relation to family building is the research on sex preference in family building by Professor Jack Goody of Cambridge University. This study is designed to discover the "stopping rules" of parents determined to have one or more sons.

13. In turn this research and the preference for sons raises questions about the status of women in society and in the family, as these relate to fertility patterns. In more specific terms the involvement of women in education and employment outside the home have certain as yet unclear effects on fertility, which need further examination. The UK ODM sees this as an important area of social science study although it is not presently supporting research in this area. Nevertheless an indication of its interest was a jointly sponsored seminar held by ODM and Cambridge University in March 1974 and designed for oversead administrators studying in the UK. This seminar was entitled "The Participation of Women in Development--Implications for Planners" and it is hoped that research potential as well as practical programmes may develop from this initiative. The seminar aroused much interest among both academics and administrators and was attended by equal numbers of men and women. The need to plan for and to study the mutual adjustment of roles of both men and women in family and work has always been foremost in the UK ODM's priorities and relates to its overriding concern with family planning as family welfare. These last points were explicitly made by the UK delegation at the World Population Conference in Bucharest.

14. The study of decision making at family and national level (as outlined in 2 ii a) and the interrelation between decision making and institutional services and policies needs to be studied much more than it is at present. The influencing of decision making through education, information and communication programmes is also a high priority in both a research and practical sense. The utilization of existing folk services and folk communication must be related to the implementation of new forms of media and institutions. An example of the UK ODM's support in this area was a study of the role of traditional midwives in Indonesia conducted by John Simons of the London School of Hygiene and Tropical Medicine. The UK ODM has also expressed support for UNESCO's work in the field of education and communication in relation to population.

15. In summary the UK ODM Social Science Research Programme in relation to population matters has been somewhat limited so far--but is something on which the UK ODM sets an increasingly high priority. UK ODM has made known that it is willing to consider appropriate proposals in these broad priority areas. It is also in full support of multilateral work in this field and would like to see more co-ordination of ongoing research by the different UN agencies. The UK projects would seem

to fall mainly within the short term action research category, and in the foreseeable future are likely to remain so--although it is hoped that projects will in time build up long term knowledge in the field as a basis for a policy generalisation and training and institution-building. Theory and methodology are seen as related goals but not of first importance since the ODM is committed to research of a practical nature which co-ordinates with aid programme needs.

16. If there is to be an expansion of social science research programmes in developed and developing countries the question will eventually have to be answered about the supply of trained social science personnel needed to maintain such programmes from within as well as outside governments. The recruitment and training of social scientists in developing countries particularly cannot be dissociated from all the research considerations so far outlined above, since field work relating to socio-cultural background is most appropriately done by trained social scientists from within the country itself. The UK ODM is increasingly applying itself to these questions and they are worthy of consideration in a meeting of this kind.

17. The UK ODM has agreed to provide a grant, initially for a period of three years from 1 August 1974, to the London School of Hygiene and Tropical Medicine towards the establishment of a Centre for Overseas Population Studies. The new Centre incorporates the MSC Medical Demography Course and absorbs the work of the Fertility Research Group. Its future programme will include short intensive courses in various aspects of population and health for overseas administrators, planners and scientists from different disciplines and provide for consultancy and advisory visits in response to requests received by ODM from overseas governments. It will also undertake research on the interrelations of population with development and health in co-operation with overseas centres.

A list of some of the research projects recently sponsored by the UK ODM and the Social Science Research Council is appended.

ANNEX TO MEMORANDUM

ADDITIONAL INFORMATION ON SUPPORT FOR SOCIAL SCIENCE RESEARCH IN POPULATION AND DEVELOPMENT

Some of the research projects supported by UK ODM and the Social Science Research Council are listed briefly below.

'Development of Collection of West African Census and Demographic Documents'	(Birmingham University)	for 3 years
'The History of the Family in England from the 16th Century'	(University of Cambridge)	for 5 years
'A Survey and Analysis of Population Mobility in Tropical Africa'	(Liverpool University)	for 3 years
'Political and Organisational Aspects of Family Planning Programmes in Developing Countries of the Commonwealth'	(Institute of Commonwealth Studies, London University)	for 3 years
'Effects of Social and Spacial Movement on the Relatedness of Oxfordshire Populations'	(Oxford University)	for 3 years
'Assortative Marriage and Social Mobility in some Oxfordshire Populations'	(Oxford University)	for 2 years
'The Population Labour Link; A Cross-Section Study of Villages in Poor Countries'	(Institute of Development Studies, Sussex University)	for 19 months
'Personality and Attitudinal Factors Affecting Migration from the Hebrides'	(Aberdeen University)	for 1 year

'Changing Character and Distribution of the Industrial Population in the Tayside Region, 1911-1951'	(Dundee University)	for 3 years
'Analysis of a Machine-Readable Sample from the 1951 Census of Great Britain'	(Edinburgh University)	for 3 years
'Demographic Study of Non-Industrial Communities; Three Case Studies'	(Cambridge University)	for 4 years
'Computer Mapping of the 1971 Census of the United Kingdom'	(Durham University)	for 3 years
'Scottish Demographic History Since the 17th Century'	(Edinburgh University)	for 6 years
'Demography of Britain 1821-76'	(Glasgow University)	for 3 years
'Scottish Migration'	(Glasgow University)	for 3 years
'Social and Religious Context of Reproduction and Marriage in the Republic of Ireland'	(Strathclyde University)	
'A Study of Urbanisation and Migration in Central Africa'	(Manchester University)	for 2 years
'Annotated Bibliography of Commonwealth Migrations	(Oxford University)	for 3 years
'Some Social Determinants of Family Size in England'	(Essex University)	for 3 years
'Principles and Practice of Pedigree Building on Computers'	(Cambridge University)	for 3 months

'Twins Research'	(Birmingham University)	for 3 years

3. A joint Panel on population research has been set up by the Social Science Research Council and the Medical Research Council, with representatives from both government and the universities, including a member of the Population Bureau UK ODM. This Panel was set up primarily to examine the broad field of population research in the United Kingdom, and to examine the implications for the academic sector of the recommendations of the Ross Panel Report. (Report of the Population Panel, published by HMSO in March 1973 Cmnd 5258.)

United Nations Fund for Population Activities

October, 1974

United Nations Fund for Population Activities (UNFPA)

1. UNFPA perception of knowledge, needs and types of supported social science research projects on population and development

The terms of reference of UNFPA are mainly to extend and sustain assistance to developing countries in dealing with their population problems and to build up, on an international basis, the knowledge and the capacity to respond to national, regional, interregional and global needs in the population and family planning fields. Compared to other international organizations engaged in population programme activities, UNFPA is a relative newcomer to the field and as such has had limited experience with social science research programmes on population and development. Priority is given to the support of the types of research which are required for or related to action programmes whereas basic research, with emphasis on the increase of general knowledge tends to have a relatively lower priority. The Fund's interest, however, is not limited to "relatively short range research activities of immediate practical value" (lower righthand corner of Mr. H. Chenery's diagram) but also includes "relatively long term concern" with training, institution-building and basic data (upper lefthand corner of diagram).

Social science research covers a wide field of activities far beyond the terms of reference of UNFPA. Nevertheless, the subject given special attention at this Conference, namely "collection and analysis of demographic data, determinants of population change and consequences of population change" fall clearly within the Fund's mandate.

Nearly 30 per cent of the total resources of UNFPA are utilized for the promotion of basic population data and population dynamics. In the field of basic population data assistance is given to developing countries to carry out population censuses, to establish vital statistics and registration, to carry out sample surveys on population and to promote economic and social statistics related to population problems. The largest programme is in Africa, where some twenty-one countries are assisted in undertaking a population census, in most cases for the first time in their history. Assistance includes advisory services, training of local personnel, equipment, salaries of enumerators, preparation of manuals and printing of schedules. Assistance is given in a number of countries to prepare plans or build up registration of vital events in sample areas or on a national basis, but assistance in this field is only modest in terms of the needs required to build up a reasonably complete vital statistics system. UNFPA is providing major support to the World Fertility Survey which is probably the largest social survey scheme ever carried out; it aims at improving the knowledge of levels, trends and patterns of human fertility through the promotion of national representative sample surveys.

In the field of demographic research the Fund provides support for a number of projects at the interregional level carried out by the United Nations Organizations, in particular, the Regional Economic Commissions. Assistance is also provided to developing countries to make full use of available census and other data for planning for economic and social development. Substantial support is provided to build up research and training activities in demography at the regional level through the six Demographic Training and Research Centres established so far in the developing regions.[1]

While funding of demographic research has been well established within the United Nations system even before the advent of the Fund, assistance to sociological research for the improvement of development goals is rather new. The awareness of the need for sociological research has emerged in response to a need to understand motivation, attitudes and the climate for social change. The Fund is supporting a limited number of projects in each of the following three areas of sociological research: (i) to better define population related programmes; (ii) to define the sociological relevance of available demographic studies and data; and, (iii) to identify the population variables that are functional in development.

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[1] For details on demographic activities supported by UNFPA, see "Demographic Data Collection and Analysis" by Halvor Gille, Third Bellagio Conference on Population, Working Paper.

Included in the first area are social research components within the programme for "better family living" undertaken by FAO, studies pertaining to the role and function of women in various cultural settings currently undertaken by the United Nations, the role and function of the social workers and social work itself as related to fertility under United Nations auspices, and comparative studies in the fields of population policy, programming and project implementation originating from cultural perception and understanding undertaken in five national institutions.

In the second area, there are ongoing programmes in Latin America, where the Regional Demographic Centre is co-operating with the Sociological Research Institution (ELAS).

In the third area, several countries (Argentina, Chile and the Philippines) are assisted in taking such variables as human settlements, industrialization, urbanization, regional development and institutional change into account in their economic and social planning.

There is an important need for channelling the findings of demographic and sociological research to groups and institutions which can make use of them. UNFPA is making an effort to disseminate data which are becoming available so that they can be put to use by policy makers and those involved in training and information, through support provided to journalistic institutions, publications in connexion with the World Population Year, seminars and training programmes, etc. Another important need is to assist institutions in training sociologists in population research. The Fund is supporting a project in UNESCO by which population courses are being included in the curricula of faculties of sociology and assistance is also provided to United Nations regional development centres to include population components in the training programmes.

The World Population Plan of Action and the resolutions adopted at the World Population Conference call for a number of social science research activities. Among research areas given priority are the following:

1. Social, cultural and economic determinants of population variables in different developmental and political situations;
2. Demographic and social processes occurring within the family cycle through time and, particularly, through alternative modes of development;

3. Formulation, implementation and evaluation of population policies;

4. Development of systems of social, demographic and related economic statistics;

5. Changing structure, functions and dynamics of the family as an institution; and,

6. Development of social indicators reflecting the quality of life as well as the interrelations between socio-economic and demographic phenomena.

2. Major UNFPA-supported programmes and institutions in the developing world engaged in social science research and population

The great diversity of the research activities supported by UNFPA through governments, institutions and organizations in the United Nations system is illustrated by the following few examples:[2]

A major study of population and employment is carried out by the ILO to break new ground in exploring the interaction of population factors and the structure of output and employment, choice of technology and income distribution. Studies are supported in FAO of the relationship between population trends and food consumption in selected countries with the aim of exploring the possible impact of technological developments in food production on the size of families.

A number of studies carried out by governments or institutions in developing countries are supported such as a study on the differentials in family size decisions and attitudes towards family planning among more educated and more traditional families (Nigeria). A pilot survey on the demographic characteristics of a nomadic population and migration surveys in major cities are supported (United Arab Emirates). A series of studies on population and law are carried out through national research institutes and universities in some nineteen different countries.

Assistance is provided to a number of governments to clarify the relationship between population trends and planning for economic and social development. Research on the labour market and migration is supported to assist decision making related to economic and social development (Mexico) as a guide for the formulation and implementation of population policies.

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[2] See further, United Nations Fund for Population Activities, Reports 1972 and 1973, and Work Plan 1974-1977.

A number of country studies are supported with the collaboration of the Institute of Society, Ethics and Life Sciences to advance basic knowledge about the interaction between cultural values and population policy with the aim of facilitating a more effective integration between national and international population programmes and recipient cultures.

National training and research programmes on population are supported in a number of countries in addition to the support provided to the Regional Demographic Training and Research Centres mentioned above.

A series of macro-case studies are undertaken by the Economic Commission for Africa indicating the demographic variables' influence upon the provisions of food, housing, employment, education, health care and social services. Under the same auspices, micro-case studies are supported dealing with family size and its relationship to individual and family welfare.

3. Programmes and institutions which may be candidates for joint or multiple agency funding.

(a) CELADE-ELAS PROGRAMME

This is a programme of the Latin American Demographic Training and Research Institute (CELADE) and the Sociological Training Institute (ELAS) to effect a close relationship between the demographer and sociologist in research and training on population. Due to the requirements of CELADE and other needs in the region, this programme should be funded partially by countries in the region and/or other donors.

(b) PISPAL PROGRAMME

PISPAL (Regional Programme of Social Research on Problems relevant to Population Policy in Latin America) is a network of research institutions of various countries in Latin America under the guidance and direction of a central coordinating unit. It executes many types of sociological research on population. It is supported by the Ford Foundation, Rockefeller Foundation, IDRC and UNFPA, while the World Bank has also shown interest.

(c) "VALUE OF CHILDREN" STUDY

A programme co-ordinated by the Institute of Behavioural Science of Korea which is mainly operative in Southeast Asia. It was originally supported by the East-West Center. This programme receives funds from the Ford Foundation, Population Council, and is under consideration for UNFPA funding.

(d) CODESRIA (Council for Development of Economic and Social Research in Africa)

An attempt to establish a network of social science research institutions in Africa which, at this stage, is being considered for support by the World Bank, UNFPA and probably other donors.

(e) WORLD FERTILITY SURVEY

The World Fertility Survey (mentioned above) is presently supported by UNFPA and USAID. Other donors might assist in particular by providing funds or personnel for the implementation of national surveys. A possible extension of the scheme to include additional topics or undertake repeat surveys would require participation of other donors.

(f) 1980 ROUND OF CENSUSES

The planning of the 1980 round of national population censuses will begin in 1975 and may require considerable assistance. UNFPA has so far mainly supported countries which are taking a population census for the first time.

(g) CICRED

The Committee for International Co-ordination of National Research in Demography (CICRED) promotes demographic research activities at the country level by organizing exchange experiences and research findings, preparation of a repertory of research projects, directory of research centres, convening of seminars on selected demographic topics, etc. UNFPA has so far been the main supporter of this scheme which requires assistance from other donors for its continued activities.

(h) ICARP

The International Committee for Applied Research in Population promotes operational research in areas of family planning and fertility reduction. Among the demonstration and pilot projects being undertaken are topics such as incentives, community agents and other social science research. The Committee is organized by the Population Council with some initial support from UNFPA.

The above proposals for multi-donor support do not constitute any commitment for UNFPA assistance, but are submitted for consideration of donors attending this Conference.

United Nations Population Division

September, 1974

United Nations Population Division

Needed Social Science Research Pertinent to the Field of Population: A Memorandum

by

Léon Tabah
Director

The United Nations: what it does; what it can do

1. The record

Over nearly three decades, the United Nations Population Division has gauged world needs for demographic research, provided international forums for the exchange of knowledge and filled gaps in knowledge of population conditions and trends. In addition to filling these roles, the Division will continue to give guidance to governments on the needs for knowledge of demographic phenomena and provide apparatus by which the world is assured that these needs are met competently and in a timely fashion.

In the past, United Nations research in population has included, in addition to population projections, studies of fertility and family planning, of mortality, internal migration and urbanization, demographic aspects of economic development, and of demographic aspects of social development. Recently, much emphasis has been given also to population policy. The results of this research programme helped to focus attention on world population problems and also to orient international assistance in the demographic, economic and social fields.

Adoption of the World Population Plan of Action is a mandate for an updating of work in these conventional areas and also for social science, including demographic, research along new, imaginative lines. Our conventional programme must be reinforced in several respects, some of the more important of which are reflected in the following studies.

2. Updating the regular research programme

a. Mortality

First, it is indicated that we resume our study of world conditions and trends of mortality. In some developing regions, where death rates are still high, the pace of the mortality decline has slackened. To what may we attribute this? Moreover, mortality conditions vary by region and social class within countries of these regions and in some developed countries as well. If all men would have an equal chance at combating the hazards of life, we must deal with the inequities in mortality risks. This requires that we identify the relevant factors, sharpening our research tools whenever this is necessary.

b. Internal Migration and Urbanization

We must also come to grips scientifically with the questions of urbanization and internal migration, to determine how these phenomena influence and are influenced by population trends, the family cycle and the individual migrant, and how they affect the quality of the environment and the development of the society.

c. International Migration

International migration is a neglected subject. Yet, as immigration has evolved over the past three decades, some developed countries now acknowledge the existence of varied social problems in respect to immigrants, and immigration has reduced the quantity of technically skilled workers in a number of other, particularly developing countries. We need to look again at the socio-cultural and economic aspects of immigration and emigration and to sharpen our knowledge of the demographic aspects. We hope to begin an analysis of these problems at an early date.

3. Changing research directions

While our future research will, to a great extent, be a response to requirements of the World Population Plan of Action, United Nations began over the past several years to change research courses, including in its action supportive research studies aimed specifically to determine conditions of population change as well as projects to facilitate the integration of population and development planning. We have also initiated micro-oriented research which is aimed to provide a firmer basis for action programmes than do the conventional macro studies of demographic conditions and trends. Of course, we do not intend to sacrifice the latter, which have served well at least to indicate to societies and to the world that the population and its characteristics are factors to be reckoned with in development programmes. But we must advance knowledge over a wider front, and this is why we intend to seek answers in the behaviour of micro-level phenomena. We propose also to focus on the consequences of population change and of alternative population trends, as well as upon factors affecting population. This, incidentally, has always been included in our mandate. Some of our future projects are described below.

a. Status of women and fertility

Much is said of the impact of the status of women upon fertility. Since status varies according to culture, there is a need for micro studies of the relationships between these phenomena, beginning with the family, in a variety of cultures. At the same time, we want to identify some of the ways in which status of women and other family members influence infant, childhood and other levels of sex-age specific mortality. The Population Division hopes to initiate work in these areas late in the decade.

b. Modernization factors affecting fertility

A share of the resources devoted to fertility studies will be allotted to work on the extent to which and the circumstances in which various modernization indicators, and particularly education, influence fertility. Another important project, intended to provide explanations for the failure or only modest success of family planning programmes, will involve studies of non-acceptance of family planning, focusing upon the roles of culture and of individual and family perception of the fact and meaning of socio-economic and demographic changes.

c. Impact of policies upon reproductive patterns

In order to determine the efficaciousness of various policy measures relative to fertility, it is proposed to undertake studies of the influence upon actual reproductive behaviour--and finally upon birth rates--of such incentives and disincentives as the granting or withholding of child, maternal and family allowances, marriage grants, old age security, taxation, availability or prohibition of abortion and sterilization, prohibition of or easy access to contraceptives, education with and without cost to parents, and so on.

d. Development of methodology

To support the research programmes in fertility and mortality, it is intended to develop methodology for following the family throughout its cycle and observing its reaction to its economic, social and demographic experiences. Among other things, it should be possible, as a result of the studies, to determine stress points in the family cycle and, consequently, to forecast amenability of the family to cooperating by adopting policy measures.

e. Population and development

This is a broad field on which much of our research borders. One of our specific projects, however, involves the development of methodology for integrating population factors in development planning from the standpoint of particular country conditions and needs, so as to facilitate population responsive development planning. We also plan to undertake, among other studies, a comparative analysis of population development in some 70 countries and an investigation of the impact of social and economic change upon demographic trends, in recognition of the need to study not only the factors which influence population trends but also the socio-economic consequences of population changes and expectations.

4. Strategy

These ideas are by no means the limit of our research plans; we have just begun to reshape our programme. The research that we undertake must fall within the terms of reference of the Population Commission but this constraint limits us very little, as our mandate is a broad one. The projects mentioned above have been endorsed and in some cases proposed by the population symposia convened in preparation for the Conference. Indeed these meetings exposed many research needs. The strategy of the Population Division is to carry out at Headquarters, with assistance (where required) from the field offices, such studies as resources permit; to cooperate in other studies with our sister agencies, particularly UNESCO and WHO; to encourage and assist research at the regional level; and to promote and assist needed studies at national research institutes.

Other needed research and experiments

There are areas in which other organs of the United Nations system may develop or reinforce knowledge of determinants of population change. For example, we need to know the importance for reproductive behaviour of the efficiency with which culture is transmitted from generation to generation. What is the role of modernization in this process? This is a task for UNESCO.

Not all of the information needed to carry out the Plan of Action can be obtained by the classic social science research techniques of collecting data, classifying it, carrying out a systematic analysis and writing an analytical report. Here, we need the cooperation and foresight of private agencies and government leaders. We must have bold, imaginative experiments. Mankind is called upon to develop resources, protect resources; preserve the environment, alter the environment; ensure the rights of children, parents, community, government. Only experiments can resolve these conflicts. For example, if we cannot experiment with the relationship between population change and income redistribution, why not experiment with resource redistribution, which offers both development and the preservation of the environment. There might be established in several countries model schemes which preserve the constructive elements of rural, village and small town culture, while bringing the population of these areas into the mainstream of national life. Decentralization of government, health, education and welfare services and rural development programmes that emphasize employment of rural women and men in more modern industries might be introduced for their potential value as methods of equalizing urban and rural conditions of life, without the often disruptive effects of internal migration. A question for research would be: What would be the effect upon fertility and mortality among the rural and small town people?

We recognize the need also for exploratory or experimental studies of modes of economic and social advancement that may be applied in developing countries as alternatives to industrialization, which has as many disadvantages as it has advantages. And there can and should be studies of the impact that the new development models have on fertility.

Experiments and analytical studies are needed also of the effect upon families and the society as a whole of active participation by the population in government policy making and the implementation of policy measures. It would be particularly informative to know the effect of such participation when the proposed action lacked favour with either the government or the populace. Examples would be programmes for wide scale adoption (of children), sterilization, availability or prohibition of abortion, and/or contraceptives, etc.

There is also need for experiments in the implementation of population policies and programmes that are geared entirely to the needs of simple rural folk. Many governments might respond favourably to a well conceptualized plan.

Finally, I would offer that, becoming increasingly aware of the impairments in our knowledge of population change, especially in the area of human reproduction and, consequently, of our limited ability to bring about change, we should be receptive to and supportive of new theories and ideas that seem capable of weathering the tests of science. In this connection, for example, some research is indicated on the effects of crowding, of environmental pressures and other tensions and stresses upon actual reproductive behaviour. We can easily find source material in both developed and developing countries. It is important that we begin now to design these and other investigations of environmental factors affecting fertility, and to look beyond the conventional research ideas and research methodology.

United States Agency for International Development

October, 1974

United States Agency for International Development (A.I.D.)

1. A.I.D. Perceptions of Knowledge Needs

A.I.D. is presently reorienting its support of social science research. Therefore, our conclusions here are tentative. We expect to have available by the end of October a fuller statement of research issues and questions to which A.I.D. intends to give major program support over the next two or three years.

A.I.D. is presently reviewing the "state-of-the-art" with respect to social science research on population. This process has involved the commissioning of a paper from the Smithsonian Institution to review recent literature on (1) socioeconomic correlates and determinants of fertility; and (2) the demographic impact of family planning programs. The purpose of this paper was to identify major gaps in our understanding of both of these key issues.

A.I.D. is now using the Smithsonian paper as the basis for preparing a strategy and agenda for the support of social science research.* The paper will be available for the October meeting at the Ford Foundation. Also at the October meeting, A.I.D. will make available a descriptive list of major social science research projects supported in the past.

Following is a discussion of some research A.I.D. has found useful and the types we will be less inclined to support henceforth.

One can make a rough distinction between social science research related to population and family planning program activities, and that related to broader matters of population policy development. A.I.D. supports both types of research and sees the need for more research in both areas.

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*Attachment A.

a. Policy-Related Research

In rough terms, there are two types of social science research in population policy. The first examines the correlates (or determinants) of population change. In this area, A.I.D. has supported relatively little research, but as indicated below more support will occur during the next several years. Even where policy makers are convinced population variables have a negative impact on certain national goals or values, they may not act without clear evidence that action will lead to results. Prescriptions for action are limited to the extent that our understanding of the determinants of population change is limited. In the absence of adequate data regarding the impact of non-family planning program activities on population change, the donor community has emphasized family planning as the principal means of affecting fertility. A.I.D. intends to give considerable support over the next few years to research and demonstration activities designed to answer two related questions: How much of the variation in fertility (under different socio-economic, political, cultural and religious circumstances) can be explained in terms of other developmental variables? The answer to this question, specific to each country, is a crucial one in determining how donor and host country resources ought to be allocated for population-influencing purposes. The second question, growing directly out of the first, is: Among various approaches to family planning and those activities other than family planning that influence fertility, which are the most cost-effective for donor and host country investment?

The second type of policy research examines the consequences of demographic change. A.I.D. supports a variety of research projects designed to bring to the attention of policy makers the consequences of population change for many social and economic sectors. Increasingly, such research is focusing on short-term rather than on long-term consequences, and on socio-economic rather than on purely economic consequences. A.I.D. social science research on population and demographic change is principally concerned with fertility. Given this particular interest in the rate of natural population increase, A.I.D. is also especially concerned with the countries that contribute most heavily to world population growth, and with countries in which population growth appears to be most clearly inimical to social and economic development.

b. Program-Related Research

Population program administrators in less developed countries have a wide variety of needs for social science research. At the most basic level, they need baseline demographic data for the definition of population problems, the development of program strategies, and the measurement of program impact. Therefore, basic descriptive demographic research receives and will continue to receive A.I.D. support. Second, program administrators need information on the characteristics of acceptors and non-acceptors of family planning services. Sociological, psychological, and anthropological research on the reasons why people do or do not accept family planning is basic to the development of sound family planning programs. Again, A.I.D. presently supports and will continue to support research designed to provide program administrators with information about the characteristics of target populations and with evidence that suggests improved means of reaching them.

Title X of the Foreign Assistance Act makes clear that the U.S. Congress intends A.I.D.'s population program to be one of action. Congress intended that A.I.D. become involved in assisting countries of the Third World to take immediate action to lower current rates of population increase. The Act provides clear authority for the support of social science research in support of the general goal. A.I.D. has generally interpreted this authority as mainly intended to support research closely related to program activities aimed at reducing fertility. As a result, A.I.D. has tended to follow a strategy supporting social science research likely to lead to relatively immediate program and policy actions.

In summary, A.I.D. has been more interested in applied than in basic research and in research where fertility is the central demographic variable. We have tended toward research that promises short-term rather than long-term payoffs. And, we increasingly insist that research be specific to particular countries. By definition, therefore, social science research has been of lower priority for A.I.D. to the extent that it (a) is basic rather than applied (i.e., deals with variables which are not susceptible to relatively short-term manipulation by policy or program decisions); (b) is concerned with mortality or migration rather than with fertility (except to the extent that the former two are themselves related to fertility); and (c) is not oriented toward the less developed countries, especially those countries experiencing the most rapid rates of population growth.

2. Major donor-supported programs and institutions in the developing world that are currently or potentially engaged in social science research on population and development

There are relatively few programs and institutions in the less developed world currently supporting social science research on population and development. Indeed, most such programs are located in the United States and, to a far lesser extent, in Europe. Examples are the Ford-Rockefeller competition, the Smithsonian's International Program for Population Analysis, the OECD Development Centre program of population research, research undertaken and supported by American universities with donor funds, etc. In the less developed world, only a few major institutions and programs can be identified. They are:

- The Program of Social Research Relevant to the Formulation of Population Policies in Latin America (PISPAL), headquartered at CELADE and supported by all the major donors except A.I.D.
- El Colegio de Mexico
- Instituto Mexicano de Estudios Sociales
- University of Costa Rica, Department of Demography
- CELADE, Santiago and San Jose
- Corporacion Centro Regional de Poblacion, Bogotà
- CEBRAP, San Paulo
- CODESRIA (an alliance of African scholars and institutions which has a population studies component)
- The University of Ibadan (Nigeria) Department of Sociology
- The U.N. Economic Commission for Africa, African Census Program
- Institute for Development Studies, University of Nairobi
- The U.N. Demographic Center, Cairo
- The American University, Cairo
- Pakistan Institute of Development Economics (PIDE)
- Population Commission, Philippines

- The Population Center Foundation, Philippines
- LEKNAS (LIPI), Indonesia
- U.N. Economic and Social Council, Beirut
- Institute of Economic Growth, New Delhi
- Operations Research Group, Baroda (India)
- Chulalongkorn University, Thailand
- Economic Commission for Asia and the Far East (ECAFE)
- Korean Institute for Research in Behavioral Science
- Korean National University, Seoul
- Ateneo de Manila
- University of the Philippines, Population Institute
- Chinese University, Hong Kong

The majority of these institutions have at least two and in some cases many more researchers actively involved in social science research. This list is not inclusive in that several institutions where social science research on population is presently under way are not included. They have been omitted because they have not yet shown a major commitment to social science research on population. All of the institutions listed above have received donor support.

3. Programs and institutions that are candidates for joint funding

Seven areas in which joint or collaborative funding might be appropriate are mentioned in Mr. Harkavy's request. They are: large-scale projects, high-risk or innovative projects, cases where recipients prefer multiple financing sources, cases of internal restraints on donors, comparative studies in different countries, "network" organizations; and cases of complementarity. It should be mentioned that these examples are not mutually exclusive. Indeed, several of them are overlapping. For example, comparative studies in different countries almost by definition are also large-scale cases, involving complementarity, which quite possibly involve "network" organizations.

In any event, the following four examples of specific projects and areas of research or demonstration project activity appear to A.I.D. to be candidates for joint funding. (Present joint-funding ventures are excluded from this list.)

a. Comparative cross-national multi-variate analysis of the socio-economic determinants of fertility. Little systematic research of this sort has been done to date, yet nearly all experts in the population field agree that we need to know more about the differential impact of various development factors on demographic change. A major research project, whether based upon survey or aggregate data, requires a massive data-collection and/or data-cleaning operation. Any single donor probably would be unwilling to commit resources required for the collection and analysis of data. Some donors, A.I.D. among them, may view such research as too long-range and too methodologically problematical to warrant highest priority. Nonetheless, A.I.D. is interested in gaining insights into the issue for long-term A.I.D. strategy implications regarding allocation of total Agency resources. Furthermore, the data required for such research are useful for other purposes such as family planning program impact studies, creation of baseline demographic statistics where none presently exist, health, education, and economics studies, etc. Therefore, partial A.I.D. support of such an undertaking would receive serious consideration, especially through institutions such as CELADE/PISPAL and CODESRIA.

b. Incentives projects: A great deal of attention has been focused in recent years on the need to carry out experimental incentives projects in the population field. Some proposals for incentives work may be large and elaborate. No single donor may be willing to underwrite the costs of starting such a large project, carrying it out, or evaluating it. Incentives projects are also high-risk or innovative. Given the preeminent concern among the donors with the expansion of traditional family planning services, none of us has much by way of experience or expertise in the incentives area. Very few experimental incentives projects have been tried. But it appears now that a number of countries are interested in testing bond or savings schemes designed to alter fertility behavior. Malaysia and Thailand both have given recent indications of interest in mounting incentives experiments along the lines developed by Muscat and Ridker. We have also received inquiries about technical advice on incentives projects from Pakistan and other countries. The social security or state life insurance programs of each country should be considered prime candidates for joint donor collaboration.

c. Cases of internal restraints on donors: A.I.D. is constrained from providing assistance to some major countries --e.g., Brazil, India, and Mexico--by the nature of U.S. political and diplomatic relations with these countries, and/or by their attitudes toward receiving U.S. aid for population activities. Although the United Nations is capable of using commingled A.I.D. funds in some of these countries, it is clear that those donors who do not operate under the same or similar constraints as A.I.D. might consider orienting their funds more specifically toward those countries in which A.I.D. is prescribed from working. This could be done (indeed, is being done) through those institutions listed in 2. above.

d. Improved institutional support for research: Without prejudice to essential current programs, donors should consider focusing joint support in an institution or institutions capable of emphasizing research on motivation, fertility determinants, and public policy, and with appropriate representation of LDC interests and needs.

ATTACHMENT A

November, 1974

A Strategy for A.I.D. Support of Social Research on Determinants of Fertility

by
Steven W. Sinding
A.I.D.

PREFACE

An initial word should be said about the context within which this paper was prepared. It was clear from the outset of the process of preparing the paper that a strategy for the support of social science research in the developing countries could not be written in Washington, at least not in an environment which excluded the contribution of the researchers and policy makers who would be major participants in the ultimate execution and utilization of the research. Yet, neither time nor circumstances permitted full consultation with scholars or decision makers in the developing countries prior to the preparation of this strategy document. All those who have had a hand in the preparation of this paper have had several years of experience working with scholars and policy makers in the developing world. Therefore, the paper was not written in complete ignorance of the needs or desires of the key actors in the developing world.

The issues posed in this paper are based on a broad, theoretical conceptualization which must be modified in light of the political, cultural, economic, and social circumstances of individual countries. Only through the interaction of the abstract issues outlined here and the particular circumstances of each country in which they may be applied can a true research strategy for any given country emerge.

We are well aware, then, that the issues posed in this paper must be treated with extreme flexibility. We hope that the reader will not infer from what is written below that A.I.D. is insensitive to the problem of cultural relativism or that we are attempting to impose a deductively derived set of research issues on other countries or organizations.

INTRODUCTION

This paper poses a series of research questions for which A.I.D. is seeking answers in order to improve its capacity to provide assistance in the area of population policy development.

The paper represents the conclusion of the first phase of a process initiated late in 1973 to define a strategy and agenda for the support of social science research[1] by A.I.D.'s population program. The Bureau for Population and Humanitarian Assistance recognized that A.I.D. support of social research lacked a unifying framework or program-related rationale at the Washington level. Money has been well spent on the investigation of important topics, but there has not always been adequate specification of why the answers to those questions might be of programmatic importance. The intention of this paper is to help A.I.D. step back after five years' or more experience as one of the largest sources of support for social science research on population issues of the developing countries to see where we stand, to review what by trial and error has been learned, and to suggest some priority areas in which a renewed effort is indicated as the A.I.D. program continues to mature.[2]

At the outset, we sought a basic summary of what is known about the social determinants of fertility and the impact of family planning programs on fertility. The Office of Population commissioned the Interdisciplinary Communications Program of the Smithsonian Institution to prepare a report on the state of present knowledge about these two major areas of social research and to identify gaps in our understanding--gaps which need to be filled by additional research. ICP's report, entitled The Policy Relevance of Recent Social Research on Fertility, was published in September 1974 after intensive review by the social science staff of the Office of Population. It was used as the basis for the preparation of this more specific identification of research issues and strategy.

This paper is intended to stimulate dialogue within A.I.D. and between A.I.D. and its collaborators in the population field. Such dialogue should lead to a practical consensus on future additional social research regarding fertility, and on how responsibility for its execution can be most efficiently allocated among and between the various agencies and organizations which are concerned with the issues raised here and which face funding and personnel constraints similar to those facing A.I.D. We recognize that other agencies will have different priorities from those specified here. Our hope is that by making explicit where our priorities lie, and by discussing them with other agencies, we may jointly arrive at a set of decisions which will have the effect of preventing both undue overlap and the persistence of major gaps.

Definition of the Boundaries of This Undertaking

This paper does not deal with research concerned with any other dependent variable than fertility. Research which seeks to explain variations in mortality, migration, or population composition is not covered. It is widely believed that these other demographic variables do, themselves, affect fertility and in that sense A.I.D. is interested in research which examines such relationships. However, the overriding concern is with fertility and how to lower it.

Second, the paper gives relatively little emphasis to questions regarding the consequences of population change. While A.I.D. recognizes the importance of learning more about the impact of population change on various aspects of economy and society, we also believe that research needs in this area are well understood by the research community and that further refinement of A.I.D. strategy and priorities in this area is not presently required. Furthermore, many of the questions below require data which can also be used to examine the consequences of demographic change, especially at the micro level. Those undertaking research on determinants will frequently examine the consequences as well, insofar as they concern themselves with feedbacks between fertility and socioeconomic change.

Third, inasmuch as this paper is fundamentally concerned with research on the determinants of fertility, it is specifically concerned with research which examines the relationships among variables, other than family planning program variables,[3] which are at least theoretically amenable to control by the instrument of public policy in the short run. In other words, the independent variables in any study must be variables over which policy makers have at least potential short-run control, either directly or indirectly.

Finally, this paper does not directly address the subject of data-gathering. Donors and researchers agree that the data base for social research on fertility in the developing countries is woefully inadequate. (Indeed, the data base for almost any statistical research in the developing countries is extremely weak.) For this reason, A.I.D. and all other major donors agencies have spent considerable sums of money to improve the quality and quantity of statistics. Improvement of social and demographic data is a sine qua non of almost all the research which this paper advocates. However, this is not the place to discuss in detail the gathering of data or to exhort donors, host governments, or researchers to continue to strive for the improvement of data. We are concerned here with the research questions for which improved data are required.[4]

A Question-Based, Hierarchical Approach

This paper is organized around research questions. The questions are arranged hierarchically; we begin with the most general questions and then disaggregate those questions into more and more specific subquestions. (The hierarchy of issue areas and the questions associated with each area are summarized in Attachment A.)

All of the questions posed here must be viewed from the perspective of specific countries. While it is certain that many of the relationships identified below are constant across countries, A.I.D. is convinced that only if the research is carried out for the benefit of policy makers and program administrators in each country will they be likely to act upon the findings. Further, indigenous investigators must be prominent in the research enterprise. To the extent that local researchers may not have preparation sufficient to carry out some of the research suggested below, they still must be involved with outside collaborators in the execution of the research.

I. A HIERARCHY OF QUESTIONS FOR SOCIAL RESEARCH AND EXPERIMENTATION

The ICP-Smithsonian study, The Policy Relevance of Recent Social Research on Fertility, argues that "the overarching problem in population policy is how to turn public objectives into private action." Extant research has shown that private actions are influenced by a plethora of public actions, some intended to bring about a change in private fertility behavior, others intended to achieve different outcomes but having an impact on fertility nonetheless. The central need of any policy maker who is concerned with changing fertility behavior is knowledge about the cost-effectiveness of alternative policies or programs he might undertake. How much change in the fertility rate is likely to result from various different kinds of inputs, financial and otherwise? To what extent will a given expenditure in family planning[5] affect fertility compared with an equal expenditure in education? What would be the consequence for fertility of a given investment to reduce infant and child mortality compared with an equal investment in expanded family planning delivery systems? These are the questions with which policy makers and program administrators must wrestle every day. They are equally pertinent to donors in the development assistance field since they should influence not only the ways in which funds are programmed but also the form which donor advice to recipients takes. Accordingly, the questions and discussions below are based upon the conviction that social research on fertility is useful to the extent that it helps decision makers determine the most effective allocation of limited resources among alternative uses in reducing fertility.

The ICP report proposes "A Hierarchy of Research Findings Addressed to Public Policy." Research findings at the three highest levels of that hierarchy ("elasticity," "expenditure," and "economizing") are the sorts which decision makers need in order to formulate policies. (These terms are defined in Table 4, page 63 of the report, Attachment B of this paper.) Therefore, in what follows, the reader should be aware that the questions which this paper poses are based upon the assumption that the answers can be cast in terms of the alternative policy options implied by these three highest levels of findings. A.I.D. is less interested in research involving the methodologies of "observation," "simple correlation" or "multiple correlation" than it is in research examining "causation," "elasticities," "expenditures," and "economizing."

Though the questions posed below require that research begin at the more humble levels of methodology, the ultimate objective is to support research whose results can be reported in terms of the options or alternatives they suggest to policy makers.

All other things being equal (i.e., holding all other variables constant), how much of the observed variation in fertility[6] can be directly attributed to family planning program activities and how much can be attributed to variables other than family planning?

In a number of countries fertility has declined in statistically significant measure over the past decade (e.g., Taiwan, Korea, Costa Rica, Chile, Mauritius). Many of these countries (including those just listed) had active family planning programs in force during at least part of the period during which fertility declined.

- To what extent can one explain the decline in fertility in terms of the existence of the programs, and to what extent are other variables responsible for the decline?
- Or, alternatively, if the programs had not existed at all, by what percentage would fertility have declined, if at all, during the period of observation?
- To the extent that the contribution of family planning programs to fertility is different in different countries, what explains the relatively different impact of the programs? (For example, it is widely believed that the changes in Mauritius have been closely related to the existence of the program, while in Chile and Costa Rica many observers are inclined to discount the contribution of the program.)

The obvious rationale for research on the questions posed above is to identify those factors which, under vastly different socio-economic circumstances, contributed most directly and importantly to fertility decline in order to isolate those variables to which decision makers and program administrators in different countries (including the donor countries and agencies) can most profitably direct their attention.

However, the answers to the questions posed above are not enough. It is equally important for policy makers and administrators to consider a range of alternative measures to reduce fertility.

- To what extent can countries which have committed themselves to fertility decline use their (often meager) population program funds in more cost-effective ways?
- Would a diversion of family planning or other development program funds to other uses such as education or employment accelerate fertility decline?
- If so, which other uses of such funds would have the greatest impact on fertility?
- With or without a change in the funds applied to family planning programs, what changes in the volume or uses of other development funds might result in lower fertility?
- To what extent has there been regional variation (e.g., urban vs. rural, large-holding vs. small-holding) in fertility rates?
- To what factors are such variations attributable?
- Are different mixes of inputs appropriate to different socio-economic environments?
- If so, what kinds of family planning/other-than-family-planning mixes are most appropriate to the different environments? (For example, is it possible that family planning services ought to be emphasized in urban environments while other-than-family-planning investments ought to be emphasized in rural environments?)

These questions imply that individual motivation for smaller families may not be sufficiently high under existing conditions in most developing countries for voluntary family planning to succeed--that such programs may peak at times and at certain levels of acceptorship, after which one experiences increasing difficulty in attracting new acceptors.[7] However, the questions also imply that well-organized and effectively administered family planning programs may motivate individuals and couples to limit family size by introducing such individuals and couples to the idea that fertility control is possible.

A great deal of research has been done on the issue of motivation for fewer children and on policies which might increase such motivation. Even more ink has been spilled on proposals for policy and program action "beyond family planning" to decrease "demand" for children. Given the charged and very complex environment within which the issue of motivation has been debated, the pages which follow seek to avoid impressionistic rhetoric in favor of empirical questions regarding specific variables upon whose answers action can realistically be based. One of the principal problems with the other-than-family-planning proposals is that they frequently ignore time, cost, or the capacity of governments to implement them. Therefore, we seek here to restrict ourselves to the consideration of variables over which governments have at least potential control in the relatively short term and to which they are likely to give serious attention should research findings merit such attention.

We have accepted the ICP's notion that knowledge of the determinants of fertility is not enough, even if those determinants are highly amenable to government manipulation. Beyond knowledge of correlates and determinants, we need solid information on the relative cost-effectiveness of alternative proposals, i.e., how much fertility reduction will result from a given expenditure?

Table 5 in Chapter III of the ICP report (Attachment C of this paper) summarizes recent research on 18 correlates of fertility. The table evaluates several dozen research undertakings with respect to: (a) the nature of the relationship between fertility and the 18 variables (i.e., whether the relationship is positive, neutral, or negative); (b) the elasticity[8] of fertility with respect to nine of those variables; and (c) the adequacy of research on each variable. From this table it is possible to select those relationships which appear to be most promising for future investigation. The reader is referred to the report for extended discussion of what is known about each of the relationships identified. The questions below are those which appear to be the most important for program and policy action in the relatively short term, i.e., the next five to ten years.

- Among those variables over which governments have control, other than family planning, which appear to be most powerfully related to fertility decline? (The ICP study concludes that some of those variables which may most strongly determine fertility decline are also those whose relationship to fertility is least well understood.)

Insofar as government actions produce more than one result --e.g., educational services and fertility decline--how should the joint products be costed out in any cost-effectiveness tests?

Income and Its Distribution

A spate of recent writings suggests that perhaps one of the most powerful determinants of societal fertility is income. Some argue that because of the vicious circle of poverty and insecurity, the rural masses perpetuate high fertility as a means of maximizing the only factor of production available to them--labor. That is to say, fertility and income may be positively related below some "threshold level." The rate of growth of income may influence significantly the allocation of resources between competing wants both in forms of quantity and quality. As income rises, a point may be reached when the "economic value of children" induces a decline in fertility. Finally, individual and/or household perceptions of (and ultimately reactions to) future growth opportunities may be influenced by the distribution of income, especially real income. Consequently, efforts to understand the effects of income upon fertility and vice versa must isolate the three related concepts of income level, rate of growth, and distribution.

However, other recent writing has emphasized that it is not income so much as other sociological variables, which are also associated with income, that best explain the apparent association between income and fertility. For example, these writers argue that emphasis on income distribution as a determinant of fertility obscures more than it enlightens. They hypothesize that far more important than the distribution of income are the changes in individual perception of the future that frequently accompany modernization. If modernization means, among other things, change from a fatalistic to an instrumental view of man's capacity to influence his future, then it is possible that fertility is much more strongly influenced by the fact that modern man, as the controller of his own destiny, sees the number of children he produces as an important determinant of his future well-being, than by income alone. No doubt the distribution of income is an important component of the breakdown of traditionalism and the advent of modernity, but it is only one of a whole series of changes that influence the structure of opportunity available to the individuals in a society. Other, perhaps equally important, components of the opportunity structure include access to educational opportunity; access to employment opportunities, especially in the modern sector; access to basic social services such as health care (including family planning); and, in general, access to those social and economic goods which are defined as most desirable in society.

- How closely are income level, rate of growth, and distribution causally linked to individual decisions regarding the number and spacing of births?
- Is the distribution of income more or less strongly associated with fertility levels than absolute levels of income? Would fertility rates decline faster if existing income were more equitably distributed or would they decline faster if the distribution of income remained constant but the level per capita increased?
- If the distribution of income is itself associated with more basic variables influencing fertility, what are those other variables? Is it possible that those variables which are most closely causally related to fertility decline are also causally related to the distribution of income (i.e., that the same variables which cause low fertility also cause improved levels or distribution of income)?
- To what extent is the distribution of income in a society a cause, or to what extent is it a symptom of fertility rates or levels?
- Assuming a strong causal relationship is established, what public measures to redistribute income are economically feasible and politically acceptable and to what extent do they offer relatively cost-effective methods of promoting lower fertility?

Other variables which appear to be especially deserving of increased attention by researchers are female education, female employment, and infant and child mortality. Questions arising from consideration of these variables in terms of their effect on fertility are the following:

Female Education

- Why do better educated women have fewer children? Is lower fertility a result of education itself or does the relationship with fertility disappear when one controls for other variables such as age of marriage, employment, social status, income, access to the means of fertility control, etc.? Is it the educational process that explains the lower fertility of better educated women and men, but especially women, or do persons who will have fewer children select themselves for more education?
- How many girls would require how many years of formal education in order to cause fertility to decline by X amount?
- Are there alternatives to formal schooling for girls that would have the same effect as formal schooling on fertility?

Female Employment

- Under what conditions is female employment associated with declining fertility?
- Is it employment that accounts for lower fertility, or does the relationship disappear when one controls for education, income, social status, access to the means of fertility control, etc.?
- Are there alternatives to out-of-home wage employment that would have as powerful an impact on fertility? How much would they cost?
- What are the implications for governments of creating out-of-home wage employment opportunities for women, especially where men would be displaced?
- Is the creation of such opportunities in sufficient number to have a major effect on fertility feasible? How much would it cost?
- Is such an approach to fertility limitation cost-effective compared with other investments governments could make?
- Would employment creation programs which give preference to female employment be as effective in lowering fertility as other development investments which governments could make?

- Which, if any, other investments would be as or more effective in lowering fertility per unit of expenditure?

Infant and Child Mortality

- Must infant and/or child mortality decline prior to fertility decline?
- Do people's perceptions of the probability of infant and child survival affect their fertility behavior?
- If so, how long after an increase in the probability of infant survival occurs do people's perceptions of those probabilities change accordingly?
- Can the gap between real change and perceptual change be shortened? How?
- How much of the variation in fertility decline can be accounted for by decline in infant mortality?
- How much of an investment in attempting to lower infant mortality would result in how much of a decline in fertility?
- Under what circumstances does it make sense for a government to spend resources on lowering infant and child mortality, in part for the purpose of lowering fertility, compared with other uses of the same resources (e.g., for female employment or education programs, for family planning programs, etc.)?

The preceding section deals with four sets of variables which are frequently said to be strongly associated with fertility. However, there are many other variables for which essentially the same questions could be asked.[9] We re-emphasize, however, what was said above: the policy maker needs to know more than the strength of a relationship and more even than whether or not the variables considered are causally related. He needs to know what is likely to be the most efficient use of scarce resources among the many alternative uses to which he can put them. Only analysis which is able to handle several variables simultaneously or consecutively permits an adequate understanding of the interactive effects of the variables over which the policy maker has at least potential control. And only analysis of the costs and benefits of alternative expenditures will provide the policy maker or program administrator with the information he needs to make a reasonable and effective decision regarding the uses of scarce resources for reducing fertility.

ATTACHMENT A

A Hierarchy of Research Questions (Listed in descending order of generality)

I. Family Planning and Variables Other Than Family Planning

A. All other things being equal (i.e., holding all other variables constant), how much of the observed variation in fertility can be directly attributed to family planning program activities and how much can be attributed to variables other than family planning?

1. If programs did not exist at all, by what percentage would fertility decline, if at all?

2. To the extent that the contribution of family planning programs to fertility is different in different countries, what explains the relatively different impact of the programs?

B. Are there patterns of historical development which make the introduction of family planning programs more propitious at some historical moments than at others?

C. To what extent can countries which have committed themselves to fertility decline use their relatively scarce population program funds in more cost-effective ways?

1. Would a diversion of family planning or other development program funds to other uses such as education or employment accelerate fertility decline? If so, which other uses of such funds would have the greatest impact on fertility?

2. With or without a change in the funds applied to family planning programs, what changes in the volume or uses of other development funds might result in lower fertility?

D. To what extent has there been regional variation (e.g., urban vs. rural, large-holding vs. small-holding) in fertility rates?

1. To what factors are such variations attributable?

2. Are different mixes of inputs appropriate to different socio-economic environments?

   -- If so, what kinds of family planning/other-than-family planning mixes are most appropriate to the different environments?

E. To what extent are the determinants of fertility additive or multiplicative, or to what extent can they be substituted for one another?

II. Alternatives Among Variables Other Than Family Planning

A. Income and Its Distribution

1. How closely are income level, rate of growth, and distribution causally linked to individual decisions regarding the number and spacing of births?

2. Is the distribution of income more or less strongly associated with fertility levels than absolute levels of income?

   -- Would fertility rates decline faster if existing income were more equitably distributed, or would they decline faster if the distribution of income remained constant but the level per capita increased?

3. If income itself is associated with more basic variables influencing fertility, what are those other variables?

   a. Is it possible that those variables which are most closely causally related to fertility decline are also causally related to income?

   b. Do the same variables that cause low fertility also cause higher income levels, higher rates of growth, and/or improved distribution?

4. To what extent is change in the distribution of income in a society a cause, or to what extent is it a symptom of change in fertility rates?

B. Female Education

1. Why do better educated women have fewer children?

2. Is fertility a result of education itself or does the relationship with fertility disappear when one controls for other variables such as age at marriage, employment, social status, income, access to the means of fertility control, etc.?

3. Is it the educational process that explains the lower fertility of better educated women and men, but especially women, or do persons who will have fewer children select themselves for education?

4. How many girls would require how many years of formal education in order to cause fertility to decline by X amount?

5. Are there alternatives to formal schooling for girls that would have more effect on fertility than formal schooling?

C. Female Employment

1. Under what conditions is female employment associated with declining fertility? Under what conditions is it associated in unchanged or increased fertility?

2. Are there some types of out-of-home jobs which cause lower fertility than other types?

3. Is it employment that accounts for lower fertility, or does the relationship disappear when one controls for education, income, social status, access to the means of fertility control, etc.?

4. What is it about employment that causes employed women to bear fewer children?

5. Are there alternatives to out-of-home wage employment that would have as powerful an impact on fertility and that would be no more or even less costly for governments?

6. Besides cost, what are the implications for governments of creating out-of-home wage employment opportunities for women?

    a. Is the creation of such opportunities in sufficient number to have a major effect on fertility feasible?

    b. Would it be necessary to replace men in certain jobs if employment opportunities for women were expanded?

D. Infant and Child Mortality

1. Must infant and/or child mortality decline prior to fertility decline?

2. Do people's perceptions of the probability of infant and child survival affect their fertility behavior?

    a. If so, how long after an increase in the probability of infant survival occurs do people's perceptions of those probabilities change accordingly?

    b. Can the gap between real change and perceptual change be shortened? How?

3. How much of the change in fertility decline can be accounted for by decline in infant mortality?

4. How much of an investment in attempting to lower infant and child mortality would result in how much of a decline in fertility?

5. Under what circumstances does it make sense for a government to spend resources on lowering infant and child mortality, in part for the purpose of lowering fertility, compared with other uses of the same resources (e.g., for female employment or education programs, for family planning programs, etc.)?

ATTACHMENT B

TABLE 4.
A HIERARCHY OF RESEARCH FINDINGS ADDRESSED TO PUBLIC POLICY

TYPE	CHARACTERISTIC	EXAMPLES
1. Observation	Awareness of a relationship between fertility and some other variable without specific examination of the nature, direction or strength of the relationship.	Many non-empirical statements exist; none were examined for this review.
2. Simple Correlation	Findings of relationship between a single ecological variable or a single personal or social characteristic and fertility; suggests a targeting procedure for population policy.	Goldstein (1972,'73) Harrington (n.d.) Mirò & Mertens (1968) Sweezy (1973)
3. Multiple Correlation	Findings of relationship between multiple ecological, personal and social characteristics and fertility which may suggest targeting procedure for population policy.	Adelman (1963) Heer (1966) Repetto (1972) Ben-Porath (1973)
4. Causation	Demonstration of correlation plus reasoned argument for the direction and scope of causation in such form as to indicate that a given policy act would produce fertility change in a predictable direction.	Gendell (1967) Hassan (1973) Mueller (1972) Rosen & Simmons (1971)
5. Elasticity	Given correlation and causation, an elasticity offers a specific prediction that a stated percentage change in an independent variable would produce a given percentage change in fertility.	Cain & Weininger (1973) Williams (1973) T. Paul Schultz (1973) (See Table 5)
6. Expenditure	At this level of analysis one could predict that a stated percentage change in public sector expenditure would produce a predicted fertility reduction.	None reviewed
7. Economizing	Research demonstrating that a given balance of resources between sectors could not be replaced by any alternative, more cost-effective mix of expenditures.	None reviewed

Note: See "Works Cited, Charts" in back of book for full references.

ATTACHMENT C

TABLE 5. SUMMARY OF FINDINGS ON THE CORRELATES OF FERTILITY: DIRECTION OF RELATIONSHIP, AVERAGES OF ELASTICITIES, AND ADEQUACY OF RESEARCH

Independent Variable	Nature of the relationship with fertility*	Elasticity (computed average from studies cited)		Adequacy of research
Income and its Distribution				
Income	?	-.24[a]	(6)[b]	Fair
Income Distribution	-	-.36	(1)	Poor
Socioeconomic Change				
Economic Development	?	--		Poor
Socioeconomic Status	-	--		Poor
Education and Literacy	-	-.15	(1)	Fair
Female	-	-.25	(9)	Good
Male	+ or 0	--		Fair
Employment				
Male	+ or 0	+.09[c]	(1)	Fair
Female		-.19[d]	(2)	Fair
Rural	+ or 0			
Urban	-			
Children	+			Poor
Value of Children				
Age at Marriage	-	--		Poor
Type of Marriage	?	--		Poor
Costs of Children and Childbearing	-	--		Fair
Son Preference	- or 0	--		Poor
Infant Mortality	+	+.33	(3)	Fair
Other Variables				
Urban/rural Differentials	0	-.11[e]	(3)	Fair
Religion	0	--		Poor

NOTES:

*(+) symbol is used if the relationship to fertility is direct, (-) symbol if the relationship to fertility is inverse, (0) symbol if there is no relationship to fertility, and (?) symbol if the relationship to fertility is indeterminant.

[a] Elasticities for per capita income and income per worker.

[b] Numbers in parentheses indicate number of elasticities found.

[c] Elasticities for male earnings.

[d] Elasticities for female earnings and female labor force participation.

[e] Elasticities for percent of population in urban areas.

FOOTNOTES

1. Throughout this paper the term "social research" is used to mean both pure research and pilot or demonstration projects designed to test hypotheses about the efficacy of family planning programs and socio-economic conditions which may affect fertility behavior. The reader should be aware that when the term "social research" is used, it refers to both observational and interventionist methodologies.

2. Space does not permit a complete review of AID-supported social science research on population. However, the Office of Population's annual volume, "Population Research Sponsored by the Agency for International Development," provides a comprehensive summary.

3. It is possible to make a distinction between two types of social research on population--policy research which is directed toward the formulation of new or improved population policies, and program research, which is oriented toward the implementation or improved operations of family planning programs. Policy research deals with both the consequences and the correlates or determinants of population change. Program research deals with the more technical matter of improving our understanding of how family planning programs can best be organized to serve specific clientèles or target groups. There are a number of places where policy and program research overlap. For example, research on the demographic impact of family planning programs can be considered either policy or program research. To the extent that such research looks only at changes in the fertility behavior of a target population and that such behavior is affected by a family planning program, it is program research. However, when the attempt is made to measure the impact of the program in the context of other societal changes which occur during the time that the program is in operation, the research has policy as well as program implications. Insofar as such research contains information regarding the allocation of resources between family planning programs and other investments which are intended to affect the demographic variables, it has clear policy implications. The Office of Population has an extremely strong interest in social research on the operations of family planning programs. However, the explication of research priorities in the area of program research is contained in a separate parallel effort which is presently under way. Programmatically, responsibility for defining and supporting research activities related to

family planning programs falls to the Research Division of the Office of Population, while responsibility for policy research falls in the Policy Development Division.

4. To a considerable extent the examination of these questions will itself eventuate in the creation of broader and more reliable data bases in the developing countries. In many instances the research questions discussed below beg the question of whether the data required for their answers exist. A large part of many of the research undertakings implied by those questions must perforce involve extensive data collection. In many countries, The World Fertility Survey is going a long way toward providing the requisite data. For good discussions of the data requirements implied by the questions below, see Ronald Freedman, "Notes on the WFS (World Fertility Survey) Research Program," London: World Fertility Survey, TAC.5.26, Aug. 1, 1974 (mimeo) and William P. Butz, Research and Information Strategies to Improve Population Policy in Less Developed Countries, Santa Monica: Rand Corporation (R-952-AID), February 1972.

5. Throughout this paper the term "family planning" is used to connote both formal programs and other activities which make possible the use of modern forms of contraception, such as commercial distribution of contraceptives.

6. There are several different operational definitions of fertility presently in use. This paper subscribes to no single definition; the term is used in its most general sense.

7. The reader should be aware that this section does not imply anything about the use of Title X (Population) funds for programmatic activities other than family planning. Rather, our intention is to indicate how Title X research funds might best be used to examine fertility-influencing programs and policies which all donors and governments should consider in overall development planning and implementation.

8. This term as it applies to population-influencing inputs is explained in detail in the Smithsonian report, p. 62.

9. Several readers of earlier drafts of this paper have objected that one or another variable was excluded which should have been included among those selected for priority attention. Among these was "the economic value of children" (especially in terms of old-age security). Variables such as this were

excluded not because they are unimportant nor because future research may not demonstrate that they are powerfully associated with fertility, but because the existing literature on the relationship between these other variables and fertility does not demonstrate that there is a strong and persistent degree of association or correlation. Given A.I.D.'s determination to fund research on those variables whose relationship to fertility appears to hold the greatest promise for relatively short-term modification through policy intervention, we selected those variables whose relationship with fertility appears to be the strongest and the best understood _at the present time_.

Furthermore, with specific reference to the economic value of children, A.I.D. is presently supporting a major research project by the Rand Corporation in Malaysia which is designed to examine this relationship specifically. Should the Rand study provide convincing evidence that the economic value of children is, indeed, a major determinant of fertility, we will change our priorities accordingly.

Finally, it should be noted that the priorities established in this paper are not intended to persuade other agencies supporting social research on the determinants of fertility that they should adopt the same priorities. In fact, a number of other agencies have quite different priorities from those established here (e.g., the World Bank considers research on the economic value of children to be of highest priority, the Population Council is on record as according highest priority to research on the consequences of fertility). With that in mind, this paper consciously seeks to fill gaps not only in what is known about the determinants of fertility but also in what each donor agency has committed itself to supporting.

Stimulating Demand for Family Planning: A Proposal

by

Robert J. Muscat
U.S. Agency for International Development

(Revised)
February, 1975

Stimulating Demand for Family Planning: A Proposal

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A.I.D.

A consensus is growing among family planning officials, demographers, donor agencies, and concerned governments that something beyond better family planning services will be required to reduce fertility to target levels, much less to ZPG levels. Just what may be needed remains a subject of controversy.

We believe most couples have some notion of "desired family size" based on more or less rational consideration of their economic and social conditions, traditional values, medical circumstances, and family planning options. Most couples probably have some idea of the minimum number of children they want--their minimum desired family size. But we also know from a variety of indications (e.g., the high abortion rates in many countries) that after some parity ranges are reached, couples do begin to consider consciously--to weigh deliberately--the decision as to whether or not to have an additional child. Many factors appear to enter into this decision process: knowledge about and availability of family planning methods; the acceptability of available methods and services; potential economic and social advantages and disadvantages of the next child; status and role alternatives for the mother, etc. Research has uncovered some strong correlations of parity differentials with some of these factors, both the family planning service factors (often called the "supply" side of family planning) and the factors affecting people's desires for children (or the "demand" side). The problem of reducing fertility might be summed up as one of determining, within specific cultures, the relative importance of these factors at different parity levels, and the most effective combinations of public policies that could reduce the parities at which couples will prefer and actually take steps to avoid additional children.

At the outset of the family planning movement, many of us believed most couples were having far more children than they wanted; early KAP studies seemed to confirm that view.

Minimum desired family size was thought to be very small. It followed that provision of safe, effective, and convenient family planning services and information would suffice to reduce fertility to low target levels. But that hopeful scenario appears unhappily inaccurate. Indications from many countries, particularly in Asia (Korea, Taiwan, Singapore, the Philippines, India, Pakistan) where family planning services have been made available on a wide, though not optimal, scale suggest strongly that while desired family size still falls short of actual family size, it probably well exceeds the 2-3 children required if fertility is to fall to the low target levels of these countries.

How can desired family size be reduced further? One way, of course, is to improve family planning services and make them more widely available, reducing the disadvantages many couples now associate with available family planning services to tip the balance in favor of family planning. But affecting the other side of the balance would help too. For even when family planning services are as effective, convenient and inexpensive as possible, residual minimum desired family size may remain so large as to prevent reaching low fertility targets. The evidence grows that economic and social conditions now leave many couples feeling compelled, or at least highly motivated, to aim for large families when they might otherwise prefer fewer children. Their minimum desired family size may depend on, and change with, these conditions. Policies that either ease these conditions or establish others likely to enhance the attractiveness of smaller families may encourage or even enable more couples to opt for family planning at lower parity; they may, in other words, increase the demand for family planning services. The economic and social environment inevitably affects fertility decisions. The choice of whether or not to practice family planning, while voluntary, cannot be made in a vacuum. How we deal with this fundamental fact can significantly affect future demographic patterns. The time has come to complement worldwide efforts to provide more and better family planning services with efforts to (a) understand why so many parents still prefer large families or, more technically, the determinants of fertility, (b) develop policies based on this understanding that can induce parents to prefer smaller families, and (c) assist those governments and population agencies already searching for "demand side" options, and (d) bring to the attention of other governments the whole range of options they might wish to be aware of and consider.

ISSUES RELATING TO DEMAND FOR FAMILY PLANNING

The Threshold Hypothesis

Many people, including several LDC leaders, now argue that desired family size will decline in LDCs only when development reaches some broad "threshold," providing a quantum improvement in the living standards most LDC populations now face. That is a counsel of doom. Over a billion people now live in deep poverty, with per capita "incomes" (including subsistence) of under $150. Bringing those people--to say nothing of those who will be born in the next few decades--to any such threshold will require massive resources which it may be extremely difficult if not impossible to produce. By better understanding what determines fertility, we should be able to pinpoint those aspects of development that seem most relevant to family size and most feasible as routes to help reduce desired family size.

Hopefully such understanding will enable governments to allocate scarce resources at least in part to fund development programs concentrating on those selected aspects to achieve faster reductions in fertility than seem likely to occur through broader development.

This proposal thus builds one of the main themes emerging from the World Population Conference. Press reports from Bucharest gave the impression that many LDCs posed "broad long-run economic development" as preferable to family planning services and other specific "population policies" in the debate over how best to achieve demographic transition. Our proposal is of course consistent with the broad view that economic and social development is a powerful determinant of demographic change. But we go on to the presumption that some aspects of development affect fertility more than others, and that policies to strengthen those aspects can be used in combination with family planning services to accelerate demographic change. Contrary to what the Bucharest press coverage may have implied, many LDCs also reject an either-or approach to development or family planning services. Rather, policy makers in these countries are now beginning to examine the interrelationships between economic development and fertility with a view to developing a complementary package of development policies and family planning programs. Many policy makers have recently expressed the need for determining more precisely what affects fertility and for developing policies that would stimulate demand for family planning services at generally lower parities. Government and private leaders, both publicly and confidentially, have asked advice on what might work. A few, in Singapore, the Philippines, India, and elsewhere, have even undertaken experimental programs. More typically, however, they ask what has been tried before, to avoid committing their own very scarce resources to an untried idea. We respond, it seems, with the same meager list of program experiments and research. We seem to be in that transitional period in the development of a new area of public policy where more is needed; but, because so little has yet been tried, little will be tried unless hesitant governments are encouraged with additional resources and with the additional strength that derives from exchanges with others in similar positions and from a steady rise in the level of supportive research and public discussion. Somehow we must promote sound research and experimentation to break this vicious circle--to develop firmer understanding of what economic and social conditions will help determine fertility and what practical programs will encourage family planning.

Next Steps

Several sophisticated and promising approaches to identifying the determinants of fertility have begun, ranging from traditional examination of correlations between fertility and broad societal characteristics to frontier research using individual data to explain and predict individual couples' fertility. Unfortunately, not all this work is scientifically respectable--reliable enough to base decisions on. The statistical problems are complex, but the basic point is simple: one must sort out the net or separate effect on fertility of any one factor, like availability of family planning services or family income, holding all the other factors constant. All too often some factor that apparently influences fertility simply masks the real, underlying influence. Our best statistical methods may still be inadequate to do the job perfectly, for both theoretical and practical reasons, but they should be tried. AID has sponsored a review and appraisal of the literature on fertility determinants that was published by the Smithsonian. The most scientifically acceptable work does suggest fertility decisions depend heavily on prevailing child mortality rates, opportunities for education and employment especially for women, the pattern of income distribution and possibly income levels, the economic contribution of children both in their youth (as producers, consumers, and "human capital" investments) and in adulthood (as providers for aged parents), housing supplies especially in urban areas, nutrition of mothers and their success in lactation, and the expectations of the poor as to how the costs and benefit associated with children may change as their parents' income and assets change. From these studies, some policy implications emerge.

Indeed, this pioneering work has generated a long series of questions ripe for answers--answers that will vary in different circumstances. We need to develop such particular policy implications for particular places.

For example, under what conditions will reducing child mortality generate a more-than-compensating reduction in births? In other words, are parents over-insuring in the form of "extra" children? What minimum level of education (especially for women) affects fertility preferences and how does that effect change as education continues? How much family planning/ population must the curricula include; how well can the general "modernizing" effect of broader education encourage smaller families? What is the separate impact on fertility of employment opportunities, especially for women, taking into account different child-care methods, the appeal of such jobs for men who are household heads and possibly unemployed or underemployed, the prospects for actually increasing output of scarce goods and services, and so on? Why do so many small farmers believe it is better from an economic point of view to have children who help on the farm than to hire landless laborers? What do children really provide in the way of old-age support to parents?

Such research could go on indefinitely, of course; we are not proposing an "infinite" list of research projects. We do believe, however, that the current small group of researchers, with current budgets, cannot cover even the major questions with major demographic implications. We are nowhere near the point of diminishing returns.

In the meantime we need not sit idly by and await the results of research on fertility determinants. We should act now to try out programs based on our best judgments as to what does influence fertility. (Particularly is this true of financial incentives, which tip the balance towards family planning regardless of what the underlying pros or cons may be; there are ethical issues surrounding incentives particularly of the immediate or short-term variety, but responsible incentive programs can be designed with a view to compensating parents for the long-run economic contribution of children in a general way even before the precise contribution of children is fully understood.) Considerable experimentation has occurred with acceptors' incentives and disincentives of various kinds. In addition to the few specific projects and policies developed in this area in the past few years there have been several formal and informal indications of interest going beyond what is already public knowledge, in terms of government interest or interest among particular officials of governments, where individuals themselves are thinking ahead to future activities which may develop into policy proposals.

The list of attempts thus far made to influence family planning acceptance through "beyond family planning" activities or policies is short but varied and extremely innovative. In India there have been both private sector (the Tata companies' substantial incentives for vasectomies and the tea estate "no-baby bonus" scheme under the management of the United Planters Association of South India) and public sector experiments (the vasectomy camps, the Maharashtra community incentives). In Taiwan, there is the education bond project. In Singapore, MCH benefits and fees, income taxes, and even housing allocation have been designed to discourage large families. Labor legislation in the Philippines has been promulgated to induce private firms to consider various incentives for employees to limit family size.

Pakistan is about to launch a scheme offering insurance on the life of a son for parents who meet certain conditions, including sterilization. The scheme will be run by the State Life Insurance Corporation, and will be subsidized by the government. The Pakistan Planning Commission is beginning to explore what fertility impact might result from deliberately taking account of programs and policies in agriculture and other sectors under the forthcoming five year plan. The Government of Egypt has been considering some possibilities including especially the creation of industrial employment for women. The Thai National Economic Development Board has also expressed interest in experimental incentives for acceptors. The Inter-Governmental Coordinating Committee located in Malaysia will be holding a regional workshop in mid-1975 reviewing "beyond family planning" experience in the area, and considering new approaches. The most widespread recognition of the linkages between family planning and maternal and child health occurs in Africa where many people feel family planning will gain acceptance only if provided in conjunction with services to improve the health of existing children and their mothers. The need for more general rural development is neatly stated in the Kenya Development Plan: "the most effective way to bring the [population] growth under control is through economic growth and development in rural areas which will change the economic and cultural incentives which result in large families." But what sorts of rural development works best we do not yet know.

In approaches still being developed or planned, evaluation and research should be built in both for subsequent refinement and for building up a base of experience for other countries and other efforts. As was the case with many family planning innovations, not to mention the establishment of family planning or anti-natalist public policies generally, the presence or absence of precedent is a factor in the deliberations now taking place over ideas still in the proposal stage. The sense of community with other family planning agencies exploring similar innovations, the search for experience as some guide to what is feasible and where the pitfalls are, the desire for dialogue with people familiar with the whole range of ideas and activities--these are all important factors that will help determine how quickly and effectively concerned governments are able to move from broad calls for integrating population policy with economic and social development, to specific operational programs and policies beyond family planning.

INSTITUTIONAL NEEDS

The institutional structure created in the past several years to support worldwide development of family planning services includes numerous university-based and non-government organizations focusing on every aspect of contraceptive technology, family planning services and demographic data. These well financed institutions have mobilized able people to engage in program research and development, education, and technical assistance to interested governments. Lacking is comparable capacity and visibility on the "demand" side. At present, if a researcher or public official concerned with population and family planning policy is interested in other countries' experience with social or economic policies influencing fertility, experience or ideas about direct incentives for inducing reductions in fertility, the state-of-the-art and current research on fertility determinants, evaluation of alternative family planning motivational approaches within the overall household context of specific cultures, availability of technical assistance for designing motivational policies or projects, a forum for brainstorming with people from various countries grappling with the same range of problems, etc., he has no obvious source of help--no center staffed with first-rate social science researchers and practitioners and at the core of a network of agencies and persons with this range of problems. Such centers exist for many problems, family planning and otherwise, and have proved their worth.

While components of such capacity do exist, including the research efforts referred to above, the time is long overdue for the population community to establish major central capacity in this area. This concept paper is intended to initiate an effort to do the job.

The overall objective for the Center would be to promote (a) the understanding of the dynamics of fertility change and (b) the search for suitable means, based on better understanding, for inducing voluntary decline in desired fertility. The Center would be charged with the following specific functions, and would be expected to develop capacities in these areas of sufficient quality to earn standing as an international source of information, training, new ideas, guidance and leadership in the field of human fertility preferences.

I. A Watching Brief: The Center would maintain a watching brief on the state of knowledge and progress in public policy. It would issue an annual assessment on the "demand side" which would inform governments and the population community on the current state of the art, major new insights, major unmet needs, etc. The assessment would help focus attention on this hitherto neglected side of the population problem and assist funding agencies in their reviews of their own priorities. This activity should help particularly those governments that have expressed general interest in moving on "beyond family planning" questions, but which are plainly unsure of how to proceed given the shortage of practical approaches and even greater scarcity of actual experience. The Center's efforts to spread the word on "beyond family planning" would help encourage actual program experiments by pointing out as precisely as possible what approaches seem most promising and by ensuring that what past experience we do have can reach those who need it.

As we have noted, we have at hand several program approaches and research hypotheses designed to spur demand for family planning that are ripe for further testing. We believe other new approaches will multiply if a few can only get underway. The Center's role of providing responsible encouragement and support to parties interested in undertaking such programs on research could be crucial in the effort to accelerate progress in the "beyond family planning" area.

II. Information Center: The Center would develop a library and a dissemination service designed to reach persons needing information on current research, evaluation, government or private policies, projects, etc., in the beyond-family-planning field. As a regular service, the Center would publish a newsletter giving recent research results, sources of unpublished materials, ongoing research, recent policy and program developments, announcements of forthcoming seminars and meetings, news of funding sources for research or projects, news of related activities at demographic and other social science faculties and institutes, etc. The Center would maintain and make available a list of institutions and individuals involved in pertinent research, teaching, experimental projects, etc.--i.e., the "sub-community" of population students and practitioners concerned mainly with socio-economic and psychological fertility determinants, rather than contraceptive technology and family planning services management, logistics, and so on, but without overlooking the important role that the style, content and procedures of service delivery can have in influencing receptivity to family planning.

III. Research and Evaluation: The Center would promote and itself conduct research on fertility determinants and would help assess the demographic impact of family planning services and a variety of "demand side" influences. It would support efforts to improve statistical methods needed to sort out the demographic impact of different factors. (In so doing, it would help fill the gap that presently exists on evaluation of family planning services; too often it is blithely assumed that services are responsible for declines in birth rates which may, of course, result from other causes.) Thus the Center would pursue such subjects as the economic roles, costs and benefits of children (both as young dependents and workers and as sources of support in old age of parents), relationships between fertility and female education, infant mortality, etc. To promote and facilitate such studies, the Center would help maintain a network among researchers and interested institutions. It would identify research gaps, make recommendations for research subjects and strategies, and help bring together researchers and sources of finance (possibly including grant funds of its own). Facilities would be available for research at the Center or for using the Center as an advisory and reference resource for field research. Essential for maintaining the Center's capacities in these research roles--and in the training functions listed below--would be research conducted by members of the Center itself.

IV. Technical Assistance and Professional Exchange: The Center would host and conduct seminars, bringing together researchers, practitioners, and planners. It would provide or help secure social science expertise to assist governments to undertake program or policy research, or pilot projects. It would maintain close ties with other institutions concerned with delivery system management and evaluation, in order to relate to programs oriented toward the provision of services and to feed research results relevant to such programs to the operating agencies.

V. Administration and Organization: To carry out these functions, the Center would need a first-rate staff, and for reasons spelled out below it should be attached to an existing institution with strong social science resources and ties to the relevant communities in many countries, developed and developing alike.

For convenience we have been referring to "the" Center as if we were envisaging one facility for the world. In fact several options could be considered:

First, if the case for the proposed capacity is accepted, it might make sense to have several serving different regions of the world, reflecting the great economic and cultural differences between regions and the greater relevance of shared analyses and experience within regions. Each would be staffed largely by persons from the region, and each could be funded by combined local and donor resources. At present, however, given the fact that the area between Egypt and the Philippines contains much greater government interest in the approach to demographic policy outlined here than other parts of the world, it would seem sensible as a start to explore interest in establishing our proposed facility elsewhere than in Africa and Latin America.

A second approach might be a facility located in Asia. Taking account of (1) the need to economize on scarce funds, (2) the desirability of getting a Center operating quickly, (3) the scarcity of social science talent in LDCs working on population, we have suggested the best approach would be to attach a Center to an existing institution strong in the relevant areas. This approach would economize on scarce resources, limit the "raiding" from other institutions needed to set up a new facility, and also minimize start-up time and administrative costs by taking advantage of the administrative infrastructure of the host institution.

When locating a regional facility, questions of the reputation of the host and of the general demographic "climate" of the country in the eyes of other countries of the region would also have to be considered, in addition to the primary questions of existing interest, institutional strength and possible commitment of individual persons who might take leading roles in developing the proposed Center.

The Center would be international in character, purpose, staff and funding. While focusing on Asia for its service functions, the Center would have ties elsewhere essential for carrying out the functions suggested.

A third approach would be to help an existing LDC institution develop the functions we are proposing either (a) as an individual Center as conceived here, or (b) as an integral part of its existing structure. To highlight properly the focus of the activities, the former would be preferable. The differences between an international Center located in a developing country, and a local Center in the same location would probably be substantial. Most local population studies institutions are still staffed thinly and would take some time to develop enough experience to serve as a basis for a regional service capacity. Any institution which is primarily local derives most of its funding from its own government's budget (or parent institution's budget, which usually means the same thing) and most of its attention and support appropriately is locally oriented. Its leadership could not be expected to give high priority to a regional activity compared with the demands of its own primary home concerns.

A fourth approach would be to attach the Center to an institution in a developed country selected particularly for its social science strength, reputation and track record in international population studies research facilities. This approach would minimize the institution-building period and help get the activities going with minimum start-up time loss. The quick start and focusing of attention on the substantive problems and activities would be a major advantage. On the other hand, not to develop a strong capacity and innovating influence in the LDCs themselves is clearly a disadvantage.

A fifth approach would be to seek the advantages of both LDC and DC locations by pursuing two tracks at once--gaining the advantages of time, profile and availability of expertise of the DC approach and the advantages of the LDC location. A truly international free-standing Center located in an LDC would have to be a fairly substantial operation, along the lines of our third approach above. (It could also serve as an example for other countries for the strengthening of local capacity in the whole "demand side" area, an important--perhaps the most important--institutional objective to be sought in this problem for any country wishing to attack its population growth problem seriously within its economic and social context.)

VI. Center Staff: A single Center might consist of around 10 experienced professionals, including director, administrative officer, two economists, sociologist or anthropologist, psychologist, family planning services specialist, someone with experience in running pilot programs, information/communications specialist, and librarian. The annual budget for these people might amount to $250-300,000. Additional provisions would have to be made for secretarial services, publications, travel, and the Center's own studies.

A dual approach might consist of roughly twice as many professionals divided between two locations, with proportionately greater resources for publications, travel, and studies.

Development of a detailed budget would take more time than was available for preparation of this paper. An order of magnitude for the Center when fully staffed at the suggested level, including adequate funds for travel, publication, and the complete range of activities envisaged, should be no less than $500,000 per year, net of its own funds for in-house or contract projects which could vary enormously. This could be considered the core costs. To the extent the Center succeeds in encouraging new research or pilot activities, or hosts seminars partly financed by other agencies interested in the same problems, its scope would be greater than implied by its own direct funding. The Center should be empowered to receive special grants, as a channel or direct manager, for particular projects where the project personnel and financing agency agree that the Center would be a suitable location or intermediary. In this capacity the Center would serve a similar function as the OECD Development Center has done, although not in the population area.

Of course costs would vary according to the approach taken with respect to the varying options described above. Again, time precluded making separate estimates for the different approaches.

World Bank

October, 1974

World Bank Research on Population

1. Although research has long been an established part of the regular economic work of the World Bank Group, it has only been since 1971 that there has been an organized research program. The establishment at that time of a separate budget for research, and of a research committee to advise on the scope and content of the research program and its implementation, reflected a considerable growth of research activities already taking place. By the standards of many donor agencies, the budget for external research is not, however, a large one. In the current year it is approximately $2 million. This has to cover research in all areas of Bank interest--for example, agriculture, education, transportation, industry, etc.--so that the amount and numbers of projects in any single field is very limited. Substantial programs of data collection are therefore not feasible. The external research budget has to cover all contractual payments with outside parties--whether individual researchers, consulting firms, or institutions--all travel, including that by Bank staff, incurred for the supervision and execution of the research projects and all data processing costs, even that done internally. It excludes, however, (a) staff time on research projects; (b) small, generally short-term studies, financed internally; (c) much economic work of a quasi-research character done in connection with the Bank's own analyses of individual economies, sectors or projects, and (d) research which is financed by loans and credits as part of specific lending operations. It also excludes the Bank's participation in the Consultative Group on International Agricultural Research.

2. The principal purpose of the Bank's research program is to support its own activities. These include the assessment of development progress in member countries and a good deal of advice on economic and sectoral policies. An increase in understanding of the development process and the improvement of the data base and analytical techniques available for general country economic work is thus an important objective of the research program. The Bank is also anxious to assist in developing

indigenous research capacity in developing countries. It therefore stresses collaborative research with individuals and institutions in developing countries to reinforce our respective analytical expertise and understanding of development issues.

3. For some time, the major constraint on research activities has been the availability of funds from the external research budget and requests for these usually far exceed the amount available. Proposals for the research committee are normally prepared and sponsored by individual staff members who will themselves be undertaking or collaborating in the research. While the committee does from time to time take a look at the balance of the research portfolio to determine areas of high priority for new projects, there is no specific budget by subject and the competition is very keen. Most projects are either initiated by staff members or arise from previous discussions between researchers and Bank staff. Although the Bank does receive directly outside proposals for research, it is not in general able to support these unless they fall within the work program and research interests of particular functional departments and divisions within the Bank which would be prepared to sponsor them, and the participation of staff members in the implementation phase of research is then usually much greater than would be the case with, say, most foundations. The research financing is necessarily on a project-by-project basis and the Bank is not in a position to be able to give core support to research institutions. The Bank's general research support is therefore limited both by its small level of funding and the availability of staff members to monitor and participate in the project.

4. In population, at the present time, the Bank is concerned particularly with economic aspects of household behavior in general and the determinants of fertility as a central aspect of this. In this regard, it is currently collaborating in two projects. One involves a survey of rural households in Northeast Brazil, carried out by SUDENE. The other, which is also financed by the Population Council and the British Overseas Development Ministry, and involves collaboration with the Institute of Development Studies at the University of Sussex, is a comparative anthropological study of population and labor force questions in several countries. We are also sponsoring research jointly with AID on the design of household surveys to improve their usefulness, both for research and also for Bank operational purposes. Research into population questions is an important part of this. The Bank is also interested in migration. A number of small studies have been made by Bank

staff and consultants on the state of knowledge and on ways of carrying out research into this important but difficult subject, and it is probable that more research on this will be financed in the future.

5. Apart from research financed through our external research budget, some loans and credits carry research components. Population projects are no exceptions. For example, the Indian population project involves our financing a population study center in each of the two project areas. These centers have responsibility for monitoring and evaluating the progress of the project. They also assist in building staff capacity in two management institutes to undertake work in population. They also are expected to suggest and evaluate controlled experiments and will have the opportunity for doing a good deal of other population research. Bank projects have also provided limited assistance for population centers in other countries. Studies directed towards management questions have often been associated with our projects. Sometimes these are directly financed by the Bank; often these have been financed by other agencies but coordinated with the needs of the project.

Summary of Discussion

Summary of Discussion

1. Population and Development

Because of the emphasis placed by the World Population Conference in Bucharest on the need to consider population phenomena within a broader development context, the meeting opened with some discussion of the significance of the Bucharest conference. Mr. Wahren gave a positive view of the Bucharest proceedings, arguing that the Conference was a success despite its overlay of political rhetoric, because the importance of concern about population trends was underscored; emphasis was placed on both population and development, not either one or the other. The post-Bucharest regional conferences to consider region-specific population plans of action may be able to reach pragmatic conclusions relatively free of political constraints. To conclude that family planning has failed or that development will automatically solve population problems is unjustified and reflects a need to clarify the expressed aims of family planning programs: societal fertility reduction vs. provision of services to individuals. Mr. Wahren noted that a growing scarcity of population funds in relation to demand requires much more care in setting priorities for family planning programs and for research agendas.

Mr. Sicat said that government population programs and the activities of international agencies in the population field are misperceived as being concerned only with fertility reduction and, hence, help to create and intensify the kind of debate between those who emphasize population variables and those who argue that population questions would take care of themselves in the course of social and economic development. Mr. Sicat affirmed that population and development are integrally related; development planners need to be fully cognizant of the implications of population trends for their planning. Planners and population experts should both be concerned about the impact of development policies on population trends. Mr. Sicat underlined these points by quoting from the Philippine four-year development plan for 1974-77:

> The magnitude of population growth is important. A high population growth rate poses needs that take away vital and critical resources from the economic development effort. It magnifies problems of unemployment, the supply and quality of social services, poverty, income distribution and urbanization. Consequently, the achievement of the desired level of social and economic development becomes a considerably more difficult task.
>
> This complexity of the population problems in constraining the social and economic development of the country brings the issue within the immediate and long-run concern of development planning.

In the ensuing discussion there was agreement that population and development are integrally related, but a divergence of opinion on what is known about the relationships and on priority research needs. Ms. Mirò reiterated the conclusions of her memorandum for the Conference* which were supported by most participants: Not nearly enough is known about the effects of population on development; answers at the global or macro-level have not been and probably will not be very useful for policy makers. Studies at the micro-level for particular country situations hold greater promise. We do know something about the effects of some aspects of development on population phenomena but very little about such variables as income distribution. There is need, therefore, both to clarify and deepen what we already know and to undertake more basic research in areas about which we know little. There is a need as well to broaden our concept of what development is; several models rather than one may be appropriate.

Several participants made clear that the usefulness of social science research to policy makers has been modest. Planners seek quantitative analyses of costs, benefits, and trade-offs among alternative population programs and development strategies but most research carried out to date cannot provide this information. It was agreed that priority should be assigned to exploration of variables most amenable to policy manipulation.

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*See pp.169-185.

Mr. Chenery noted that planners need not understand the causal links between population and economic and social variables, but need simply to be aware of strong association between such factors as level of education or infant mortality and fertility levels in order to make policy decisions. The task for the development planner is a reduction of population growth rates at lower levels of national income than has been achieved to date except, perhaps, in Mainland China. (A discussion of "population-related choices" that need to be made by the development planner is contained in Edgar O. Edwards's background paper presented at the conference.*)

2. Social Science Research Needed for Population Policy

Mr. Demeny† asserted that we know a considerable amount about the effect of population growth on development, although there was little demonstration at Bucharest of awareness of these implications. The basic problem, as Mr. Demeny sees it, is that the political and market mechanisms of society are not working in the population area. The individual is affected by the fertility behavior of his fellow citizens, but he cannot affect this behavior. Hence, the collective good is not delivered by the system. Here lies the rationale for governmental instruments to evaluate the problem and to deliver it to the political process. Social science research can illuminate the design of policy instruments and can study the failures of the political process.

The kind of information that is needed falls into two categories: (1) what are the demographic processes under way, and (2) what are their causes and effects? In the matter of causes, the primary areas for study are those which are subject to governmental intervention or manipulation.

Mr. Demeny argued, however, that we must resist the temptation of establishing a priority research list and must be fully aware of the fact that social research takes a long time, often provides ambiguous answers, and is sometimes a wasteful process. Still, we already know a great deal. We need to pull it together for policy makers, revealing gaps in the present knowledge, and thereby create demand for further required research.

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*See pp. 5-21.

†See his background paper, "Population and Development: An Agenda for Policy-oriented Research," pp.51-63.

With respect to research on the consequences of population growth, Demeny suggested consideration of national "population impact reports" every two or three years. These reports must be written in such a way that they will reach and be read by the right people. They should focus on the impact of population change on subgroups of society, e.g., on specific age groups, women in the childbearing age, landless laborers, industrial workers, as well as on the nation as a whole.

Mr. King* expressed modest disagreement with Mr. Demeny, asserting that we do not know enough for policy making. He noted that most governments lack strong population policies, which suggests that there might be utility in studying the decision-making process in adopting such policies (are the key factors value judgements, lack of knowledge, communications gaps, or what?). The second question for research described by Mr. King is how policies which are adopted might be made more effective.

On the first question for research, Mr. King noted that governments may differ as to the magnitude of the problem, but that research has already shown that there are certain facts with which disagreement is not rationally possible, e.g., the mathematical certainty of the momentum of population growth and its implications. Some governments may also hold naive views on the rate at which fertility will decline in a "natural" way consequent upon social and economic development. Research has not yet illuminated which are the key variables in this process.

On the impact of population growth on development, Mr. King noted that planners tend to look only at a short time frame while population processes are long-term in nature. One way to affect their perceptions on this matter would be to isolate population effects upon certain sectors, e.g., education. Basic research is not needed here: what is required is applied research and communication of its results to the policy maker. Mr. King feels, however, there is a research gap in the area of the impact of population growth on overall economic development. While the basic Coale-Hoover model is still fairly powerful on theoretical grounds, its predictive power has not proven to be very high when tested with available empirical data.

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*See Timothy King, "Economy Research Priorities: Population and Development," pp.67-82.

A third question for research is that of the Malthusian debate: to what extent can the world support a growing population? Mr. King commented that he did not find most of the speculation on carrying capacity of the earth very helpful, since it tends to exclude such important considerations as managerial skill and organizational arrangements.

A fourth area for research is on the effectiveness of policies to reduce fertility. We need to find out how to run family planning programs better. This involves managerial research as well as social research.

Finally, Mr. King argued that we do require more understanding of the determinants of fertility. For example, what are the benefits of children in a given society? Recent research concerning the economics of American slavery suggests that a newborn slave did not pay off his owner's investment until the age of 27. If this is true, it casts doubts upon some of the assumptions as to the economic value of children in agrarian societies.

In all of these research areas, Mr. King argued that social scientists must look not only at the national level and at the level of the individual and the family, but also at the community level, the level at which pro-natalist social forces are most effective.

In the general discussion that followed the two presentations, the disagreement between Mr. Demeny and Mr. King was held to be more apparent than real. Mr. Demeny was emphasizing the use of research to motivate the establishment of population policies, while Mr. King was emphasizing the utility of research to inform the nature of policy. Both types of research are necessary, and each is complementary to the other.

Mr. Tabah identified a need for studies of the social and economic consequences of alternative population trends. As a beginning, the analyses might deal with the relationship of public expenditure to varying population trends in specific countries.

Ms. Olin urged more attention to comprehensive, detailed longitudinal micro-studies, capable of demonstrating how and by what means people adapt and adjust to changes in the conditions of life brought about by the development process. Cross-sectional statistical surveys can provide an indication of the results of behavioural adjustments but they leave us in significant degree guessing as to how the adjustments actually occur. As an example she referred to Scarlett Epstein's book South India: Yesterday, Today and Tomorrow - Mysore Villages Revisited. More generally, she emphasized that development, while having certain obvious general characteristics, was an historical process, involving all aspects of behaviour. Certain conclusions follow from this view.

One is that development will, for its understanding and management, require a comprehensive approach at all levels--local, regional, national and international. As has often been noted, this calls for interdisciplinary research. However, the interdisciplinary competence needed for such research does not seem to be fully appreciated. For lack of understanding, interdisciplinary work is difficult to launch and often meets with poor response. Methodologically, these problems can be described as a matter of complementing the typical statistical approach to development research with what may be termed taxonomical studies. Another conclusion is that the time scale for behavioural change as often as not is one of generations rather than years. When change finally comes, it may be both rapid and drastic. Differently put, it is not realistic to think of development as a smooth gradual process, as is often assumed or implied in development plans. This is an observation that is highly pertinent in relation to changes in the pattern of reproduction.

Mr. Sicat emphasized that the gaps in knowledge become more apparent when dealing with a concrete situation in an individual country. Interdisciplinary research is difficult, and Mr. Sicat finds himself often unable to understand conclusions emerging from such research. These include political science, psychology, public administration. and anthropology. Mr. Sicat noted the complementarity of micro- and macro-studies. Each is needed to make the other more meaningful. Mr. Sicat reported that population experts in the Philippines had drawn up a list of priority research relating to population policy. (See pp. 189-196.)

Mr. Sinding referred to his paper, "A Strategy for AID Support of social Research and Experimentation on Determinants of Fertility,"* which specifies a number of questions for research, concentrating on the demographic impact of family planning programs and the effect of a number of other factors such as income distribution, female education and employment, and infant and child mortality on fertility with an attempt to find the most cost-effective measures available to the policy maker.

Mr. Mathieson noted that UK diplomatic representatives in a large number of countries, even those with official policies to reduce population growth rates, are concerned with the political sensitivity of foreign assistance for population policy research and implementation. He urged attention to the problem of justifying to policy makers in industrial countries the need for continued and increasing expenditures for development programs, when there are those who look with despair at current development efforts and predict that inevitable growth of population will lead to even more grave poverty.

Mr. Wahren pointed to the current simplistic arguments about the causal links between social and economic development and rapid reductions in fertility. He gave the examples of Cuba and the Democratic Republic of Vietnam, DRV, educated, well-fed, and egalitarian societies, which nonetheless continue to have a population growth rate of 2.3 percent and 2.7 percent respectively. Similarly, in China the population growth rate is still on the order of 2 percent. The DRV has recently adopted a vigorous policy to encourage fertility reductions. Mr. Wahren urged studies on the process of reaching decisions to adopt population policies. He suggested that there be a series of case studies examining in detail how population policy came into being in a sample of developing countries. These might provide guidelines for action by international agencies as well as for concerned citizens and NGO's in countries which have not yet adopted population policies.

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*See pp.290-310. A related paper on "Social Research and Programs Reducing Birth Rates," presented by Ronald Freedman to the first Bellagio Conference on Population, April, 1970 is reprinted, pp.25-48.

Mr. Berelson saw two themes in the discussion: (1) whether population policies ought to be adopted, and (2) which policy approaches are most effective. On the first, he noted that we at present are less sure than formerly about the relationship between development and population. Such research must be done in particular locales; study of the consequences of population growth may provide compelling reasons for the adoption of policies. On the second question, research must confront the assumption of some policy makers that if they work even harder on general development, population growth will take care of itself. If a few development variables ("thresholds") can be identified by research as most important in affecting fertility, this information would be of great utility to policy makers. Finally, the effectiveness of direct interventions via family planning programs and the optimal resource allocation to alternative programs and approaches are fertile areas for policy research.

Mr. Muscat noted that there were many countries in the world which were already committed to population policies and which did not need further studies of the consequences of rapid growth merely to spur recognition of the problem. He emphasized the need for more extensive studies of social experiments affecting population variables presently under way.

Mr. Bell noted that population problems are different in different settings and governments also see them differently in the same setting. Therefore, research must be country-specific and ideally should be done by nationals of the countries in question. This implies the need for the establishment of research capacities in diverse and numerous places along with the establishment of clear links between the researchers and the policy makers.

3. Strengthening Research Capacity, Data Gathering, and Links to Policy

Social Sciences and Social Processes

In his opening discussion Mr. Sutton spoke of the complicated ways in which social sciences relate to social processes. He noted that some social processes are amenable to change through government policy, but that many are not. The social sciences are important less for their capacity to contribute directly to policy formulation and decision than for their role in affecting "the mood of the world" and in shaping the ideas that become current and influential. The shifting mood of the times is an important factor in policy change. Mr. Sutton noted a recent large-scale shift from an optimistic view of the future to one more characterized by doubt and pessimism, a shift that could have and perhaps is having implications for fertility. The extraordinary change that has occurred in the past year or so in official opinion and policy in Mexico was mentioned, and Mr. Sutton speculated on what effect the social sciences may have had in bringing it about. One outcome of social research may be that it lends a note of authority to statements of social scientists that gives them weight and access to the attention of policy makers. A possible factor in the sudden popularity of population policy in Mexico may have been the success of the social sciences in bringing into public awareness the fact that there is an unfilled demand for family planning in Mexico and the subsequent realization that it may be good politics to attempt to meet that demand. The greatest value of the social sciences may lie in their capacity to provide the right information at the right time and in specific and concrete detail. There are no good, general models for the organization of social research that have universal applicability. Institutional structures are quite diverse; it is therefore necessary to approach the organization of social sciences in the context of specific countries and specific in-country situations. Mr. Sutton concluded by calling attention to the relative scarcity of micro-level studies in the area of population and by noting a comparable need for intermediate-level research in which the unit of analysis is something between the single family and the population aggregates that are of concern to large sample surveys.

Mr. de Graft-Johnson made a number of useful observations in his opening comments. They were directly relevant to the several topics for this session and have been incorporated into the summary at several points below.*

Strengthening Research Capacity

Mr. Bell pointed the group to the question of the state of research capacity in the LDC's and asked if the essential institutions are, in fact, built. Mr. de Graft-Johnson said that, as a result of developments in the past 10 years, social research capacity is fairly satisfactory in Africa. There are three demographic centers supported by the U.N. and a fair number of universities with developed social and population research capacity. Most African universities are fully funded by governments, a fact that determines to some degree the direction and speed of their development and the kinds of research they undertake. Two lacks were noted--some deficiencies in library holdings and services and in some areas and for some purposes a scarcity of data. Donors could help to augment capacity in some areas of Africa by making it possible for senior personnel of developed country institutions to serve for periods of time in LDC institutions where they could guide, teach, and assist younger people who are learning the research craft. As Mr. de Graft-Johnson put it: LDC research institutions in Africa need people more than they need research grants.

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*See also Mr. de Graft-Johnson's background memorandum, pp. 155-161.

Ms. Mirò said that there are in Latin America important groups of social scientists who could be directed toward policy research and who are becoming interested in it. The task, as she sees it, needs both demographic and socio-economic analytical abilities. The capacity exists, but the attention thus far has been minimal.

Institution-building, especially personnel development, was seen by Mr. Sicat as of continuing importance in Asia. He noted the constant drain on resources as researchers retire or are drawn off into other occupations and hoped that donor agencies would be concerned to maintain a proper balance by helping to replace capacity lost by the departure of researchers.

Dr. Bindary described past research efforts as characterized by an emphasis on demographic, family planning, and KAP studies and sees for the future a new awareness of the complexity of population problems and of their multidisciplinary implications. He expressed doubt that Egypt has all the capacity needed for interpretive research with multidisciplinary complications and anticipated problems of motivating institutions to engage in population research and in mobilizing and coordinating existing capacity.

Several speakers mentioned the importance of continuing support for basic research during a period when problem-oriented research is being emphasized. Several also noted that in many LDC's the capacity to generate data has outrun the capacity to analyze them and saw an important role for donor agencies in helping to strengthen analytical capacity, especially in departments of statistics. The need for continuing encouragement and support of such departments was frequently referred to in this and other sessions. Although many countries may have reasonably good social research capacity, the point was made that there is still a need for the input of ideas and results from the outside, and it is still important to keep open channels of communication among social scientists in different countries and especially between those in the developed and less developed areas. None of the Third World participants saw "academic imperialism" or "neo-colonialism" as an issue hindering such collaborative efforts so long as the collaboration takes place on equal terms.

Data Gathering

Good and accessible data are an essential requisite for good policy related research. Three types of data gathering activity were discussed by Mr. Tabah--censuses, surveys, and vital registration--with much of the discussion focussing on the first two. He suggested special attention to gathering data for the small countries where fertility has declined recently and to the large countries where changes in fertility are not taking place. The relative advantages and costs of censuses and surveys were discussed at some length with some consideration being given to the idea that perhaps the time has come in some countries to consider discontinuing census counting. Censuses are more expensive than surveys and are more limited in what can be obtained. Surveys, as Mr. Lux pointed out, offer greater accuracy and can encompass a wider range of variables. On the other hand, Mr. Demeny noted that generalizations for small political and geographic areas can often be obtained from censuses but are less available from surveys. Some doubt was expressed about the quality of many LDC censuses, and it was suggested that new census techniques and more imagination in the preparation of census schedules are needed.

Primary data collection is a responsibility of central statistical offices, although university and other investigators should be prepared to collect their own data when they are not available or when participation in data gathering would be an aid to analysis. Statistical offices need to be strengthened, especially in their capacity to analyze data.

Several people noted the tendency for data gathering capacity to outrun that of data analysis with the consequence that existing data are not fully used. Ms. Mirò said that basic demographic collection was better 10 years ago in Latin America than it is now and emphasized the need for good information as a basis for policy decisions. She feels that intellectual encouragement and support from donors may be more valuable than financial support in improving the situation. She was critical of the quality of U.N. leadership in this field and argued that since large-scale data collection is an activity and responsibility of governments, not of universities, U.N. leadership and support are essential.

Mr. Gille said that it is time for donor agencies to review their positions. He thinks they will not be able to continue support for data gathering at the levels of the past few years. UNFPA, he said, will have to put some $20 million into censuses in the next 4 years, with $12 million going to African countries that have never taken a census. Countries that have been funding their own data collection in the past are now beginning to ask for supplementary help. He thinks it may soon be necessary to turn to other means of getting needed data. He noted that the World Plan of Action calls for all countries to take decennial censuses, improve vital registration, and collect other demographic statistics. The Plan has a research priority list that is too long to have any hope of complete funding. Selections will have to be made. In any case, UNFPA has no mandate to support basic research, although it can help to build capacity, train researchers, and assist countries to organize their own data collection systems.

Mr. Bell noted an apparent consensus that more detailed and more current information is needed and that it will have to be obtained from increasingly sophisticated research techniques. He asked where and how decision makers can learn the relative costs and benefits of different techniques and whether the capacity exists for training people to design and carry out the studies that seem to be needed. Mr. de Graft-Johnson mentioned that expertise in data collection methods is not widespread among African researchers and suggested the utility of a permanent field staff for central statistical offices capable of conducting repeated household surveys.

Mr. Demeny recalled his earlier remarks about the importance of demand in improving the quality of data. He argued for efforts to create demand for research data and noted that institution-building contributes toward the creation of such demand, as does the development of research and analytical capacity. He suggested that the best contribution the social sciences and donor agencies could make might be in helping to "breed the constituency" that demands and uses demographic and other population data.

Links to Policy

Mr. de Graft-Johnson defined the problem of getting research results to the attention of policy makers as a serious one, and suggested that one way to approach it would be to get policy makers involved in the research process from the beginning. A difficulty is that of getting top-level people to cooperate. He noted a tendency for them to send third- and fourth-level people to represent them at planning meetings, people who can't or don't transmit to them full information.

Ms. Mirò said that in Latin America there is good social research that is relevant for policy, but that little or none has been used for policy formulation. On the other hand, some technically unsophisticated research such as that on the incidence of abortions has influenced policy. She recalled a meeting in Costa Rica last April in which leading government officials and social scientists participated in discussions devoted entirely to population matters. A similar meeting, she said, is scheduled for Mexico next spring. ECLA is considering the establishment of an international population committee made up of officials who are responsible for population matters in their several countries. It is hoped that the committee could be used to initiate and institutionalize a dialogue between researchers and policy makers. Mr. Wahren suggested that political scientists might usefully participate in the design and reporting of research since they may be more likely than researchers of other disciplines to know how to make findings interesting and comprehensible to policy makers.

4. Strategy for Donor Action

Ms. Zagorin summarized a consensus from previous sessions: Training and staff development are essential for effective policy research. Some institution-building is still required; more research is needed on the relationships between population and development; present discussions of these relationships are at far too general a level; data collection is still in need of improvement; and finally, research must be linked directly to policy makers via effective institutional arrangements.

On the question of whether current levels of funding for social science research are adequate, Dr. Bindary commented that there has been extensive waste in the past and that future research must be more parsimonious and better directed at key issues. He argued that none of the six columns of the Chenery Diagram* can safely be ignored. However, he emphasized the need for regional and micro-level studies, arguing that we know a good deal already about macro-level relationships. He also argued for the integration of research topics. For example, studies of women's employment must involve areas such as education, roles, agriculture, and industry. In response to Ms. Zagorin's comment that the international agencies cannot support all areas involved in the Chenery Diagram, Dr. Bindary suggested that the agencies should specialize in their interests and coordinate their efforts to make sure all are covered.

The latter point was reiterated and emphasized by Mr. Chenery. Agencies must ask each other what each does best and coordinate their work. However, he would not argue too strongly that all research must be country-specific. We are looking for generalizations despite differences in countries. These generalizations must be qualified to make them correct for specific situations. International agencies are particularly well placed to encourage and finance international cooperation for comparative studies using common research design. Mr. Chenery also argued that the agencies themselves should do research and should instigate research. They cannot intelligently support the research of others unless they do so.

Mr. Kuroda urged research on the economic and social impact of population change for 25 years ahead. He called also for cross-cultural micro-studies on fertility behavior, research on optimal national population levels, and study of the social and economic consequences of stationary population policy.

Mr. Mertens outlined four areas in which he urged emphasis by the international agencies:

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*Mr. Chenery's diagram of the "research support system" is reproduced on p. 126.

(1) collection of basic data, particularly data which can be analyzed quickly and which create institutional interest in research;

(2) studies of consequences of population growth in an attempt to "de-ideologize" the problem of population growth;

(3) research on the nature of social policies that can affect fertility in significant ways; and

(4) research designed to improve family planning programs, noting that even North Vietnam and Cuba need family planning programs along with their development policies.

Mr. Wahren asserted that there is sufficient consensus on the consequences of high fertility rates; higher priority should be given to study of the determinants of fertility. He urged preparation of a summary statement on what is known and not known on the relationships to fertility of such factors as health and education. Mr. Sinding noted that the Smithsonian report on "The Policy Relevance of Recent Social Research on Fertility"* is a review of the literature on the socioeconomic determinants of fertility. While the studies reviewed by the report show significant negative association between fertility and such factors as female education and employment there are no research results on which to base decisions as to the most cost-effective strategies of fertility control in given countries or regions.

Mr. Bell sought to move toward a significant judgement from the discussion period. He perceived an agreement that evolving agency programs of research support should emphasize research in local settings in developing countries--to improve our understanding of the connections between population change and other social and economic change. International agencies have a role in developing networks of researchers, but they must recognize that local competence is necessary before international linkages are effective. However, there is no general blueprint for action. Each country must be approached on an individual basis with sensitivity to its local needs.

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*Interdisciplinary Communications Program. Occasional Monograph Series, No. 2, September, 1974.

While first priority must go to building research capacity in the countries where population problems are most pressing, the agencies should encourage continued attention to these problems by established research resources in Europe and the United States.

Mr. Demeny supported Mr. Bell's summary. The Population Council is in the process of completing its survey of institutional capacities for research in developing countries, which shows the need for building additional capacity. Mr. Demeny reiterated, however, the importance of establishing local demand for the products of research if research capacity is to grow. There is little such demand in many developing countries. Furthermore, research on the consequences of population change must be at the national level in order to attract the interest of national leaders. The fatal flaw of many UN documents is their global view, permitting policy makers to assume that population problems are the concern of nations other than their own. Mr. Demeny suggested the preparation of national population and development status reports every few years and efforts along the lines of the U.S. Commission on Population and the American Future.

Mr. Mathieson noted that the UK Overseas Development Ministry is about to finance establishment of a center for overseas population studies based in London under the directorship of William Brass as a research and training base for its overseas activities. He agreed with the general consensus of the discussion, however, that future support for social science research on population should be concentrated (but not exclusively) in the developing countries themselves.

5. Possibilities for Donor Collaboration

Opening remarks by Ms. Mirò highlighted the benefits of donor coordination and cooperation in population work despite differences among agencies in their goals and program strategies. Joint funding of projects can encourage questioning of firmly held views on the part of individual donors and provide balance in the expertise applied to the analysis of program proposals and performance. On the other hand, joint funding can also result in delays in decision making or modification of a project idea into a "compromise proposal" which reflects a collection of donor views or overly elaborate and repetitious reporting requirements.

Ms. Mirò asserted that the illustrative proposals for joint funding submitted to the conference* deserve further study and comparative assessment. She suggested that significant opportunities for research and program experimentation on population variables can be carried out in conjunction with ongoing projects in other development fields such as experiments in agricultural innovations; and that much analysis remains to be done of existing census data, as for example Brazilian data on children ever born to families on which there is economic and social data. Ms. Mirò urged international agencies to avoid establishing new institutions but to concentrate on strengthening existing institutions. Donors were reminded to continue sustaining support to ongoing programs that are functioning well.

Additional proposals beyond those included in background papers for the meeting included: (1) systematic training of development planners in population phenomena of relevance to their work and training of demographers in techniques of planning; (2) support of national population commissions; (3) support of the International Union for the Scientific Study of Population as a link between researchers and policy makers; and (4) research award competitions at the national level in addition to or in place of worldwide competitions.

Mr. Lux emphasized the need to provide a variety of incentives for developing-country scholars to undertake research on their own problems. These may range from the provision of library resources to international recognition through opportunities to publish results of micro-studies of local situations in international journals.

The extensive discussion of research needs and strategies indicated that an informal coordinating mechanism for activities of international agencies could be useful. Mr. Kieffer and others called for consultation and division of labor among international agencies that could lead to more efficient program support. He called for a continuing overview and information dissemination system to point out critical gaps, stimulate workshops, and "fill in" the Chenery Diagram for individual countries as a means of setting priorities. Dr. Brown urged the international agencies to devise a conceptual framework in which to judge proposals put before them for funding.

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*Research Additions to the World Fertility Survey (WFS) (Ronald Freedman); "Action to Improve Vital Registration and Vital Statistics in Developing Countries--the International Institute for Vital Registration and Statistics (IIVRS)" (Forrest Linder); "Stimulating Demand for Family Planning: A Proposal" (Robert J. Muscat); "World Community Studies on Population and Related Matters" (Moni Nag); "Technical Information Services" (University of North Carolina).

Mr. Chenery called for an effort to broaden population research, focussing on the concern of policy makers, merging, for example, the thinking of planners in education and health with that of specialists in demography. He urged that successful policy experiences be identified and analyzed in the hope that they may be replicated elsewhere. Mr. Chenery reminded the conference that most knowledge in the social sciences is derived from "happenings," not from social experiments.

6. Next Steps

Mr. Bell led off by indicating how the subjects discussed at the meeting look to the Ford Foundation. From this and other meetings it seems clear that many policy makers are increasingly eager to receive advice from social scientists, particularly if actions prescribed are framed in general developmental terms. Thus a steady increase in the felt need for research can be anticipated. This does not dispute, however, the need to encourage demand for research on the part of policy makers. All in all, much more spending will be needed on research on population and development and on communicating the results. Much of the support for such activities will have to come from local sources, but there is an important role for international donor agencies to play. Impressive cases were made for research on the causes and on consequences of population growth and for syntheses of these. The same can be said for research on family planning and for the need for satisfying data requirements. Discussions on setting priorities must be carried out on a lower level of generality than was possible at this meeting. It is extremely important to continue to provide help to build research capacity and to make sure that such capacity will be relevant to the needs of policy makers. These conclusions are perhaps not startling, but form a usefully solid underpinning for action. What will the Ford Foundation do about all this?

The Ford Foundation expects to continue to give emphasis to the population areas just described. Two other special areas within the broader population field that Ford has supported heavily are biomedical research and work on making family planning programs more effective--managerial aspects, evaluation, innovative activities. In looking ahead, the Ford Foundation faces reduced budgets and indeed a possibility of major reductions, although the Trustees have not yet said the last word. What can safely be said is that the Ford Foundation expects to cut its support for the population/social science field less than other fields. The Foundation would prefer not to have budget cuts in this field at all, but some downscaling is inevitable. This, however, still adds up to a high priority emphasis on population/social science.

The follow-up to the work of this meeting is a complicated subject. Those planning the meeting did not prepare in advance for this task. But it would seem that a technical group ought to be formed to assure continuity of consultation, communication, and monitoring. Such a group could commission "state of the art" papers, deciding on the scholars who could be approached to prepare such papers and determining who should pay for them. It could take a look at what should be done to finance the costly data-gathering operations and other projects that are too large for a single agency and might need joint financing. It could keep an eye on institutional capacity and development. Mr. Bell took note of the problems in setting machinery for follow-up but suggested further examination of this idea.

Mr. Kieffer declared that despite reduced budgets, AID will try to put more in this area. However the picture on Congressional support is cloudy; it is hard to be specific. Mr. Kieffer detected at this meeting more urgent need for a research effort than he had expected. AID is interested primarily in a "question-centered" approach rather than research as such. AID must be interested in practicalities which means relatively short-term payoffs. One important AID interest is rapid dissemination of research results. This works well in the biomedical area via the George Washington University Population Information Program; it should work in the social sciences as well. AID would be prepared to contribute part of the cost of such a project.

On behalf of IBRD, Mr. King seconded the idea of follow-up on the meeting. He questioned the need for creating a new mechanism, however, favoring smaller ad hoc groups that might gather from time to time. The joint financing of Scarlett Epstein's village studies by the Bank, by Population Council and ODM is an example of Bank collaboration with others. The need for such collaboration is not so much to secure more funds but because this is a high-risk area and the Bank values the concurring judgment of others. The Bank also collaborates with AID on various matters. It considers data-gathering important, but the money needs are too large for IBRD's modest research budget. However, the Bank is now collaborating on a data-collection project with the Brazilian government. Mr. King feels that work with planners and policy makers is important and that the Bank has some special entree to such people. More priority should be given to micro-level work, notably on the determinants of fertility. A research component is built into Bank-financed family planning programs--a great problem here is the very long lead time before results become available.

Mr. Davidson noted that the Rockefeller Foundation's interest in population is invariably placed in the broad context of studies involving man in his environment and involve a variety of social sciences. The Foundation believes that slow and patient work to develop institutions and supporting fundamental research yields high dividends in the longer run. The Philippines example demonstrates this. (This was a reference to Mr. Sicat's complimentary comments on Rockefeller's labors that started twenty years ago in economics in the Philippines, that, Sicat said, is now paying off nicely.) Rockefeller's long-term strategy is not just to facilitate financing, but also to foster cooperative relationships, staff exchanges with developed institutions, etc. All this takes much longer time than most people realize. Mr. Davidson expressed interest in coordinating such work with more narrowly policy-oriented endeavors. He doubted the usefulness of a formal consortium, though he expressed approval of an informal technical group to follow up.

Dr. Brown stated that the meeting was very useful for IDRC; it will help to better focus IDRC's work in fields in which it has been quite active in recent years. Institutional development and the fostering of local research capacity is of great interest to IDRC and it intends to do more than it has done in the past in this area. IDRC has been active in helping data-gathering efforts, especially in Africa; perhaps it will give less emphasis to this in the future. Dr. Brown feels that a follow-up should be informal but continuous. Occasional ad hoc meetings are not enough. A minimal structure is needed but must go beyond just exchanging information and must actively foster program-monitoring. Dr. Brown seconded the idea of commissioning papers on the state of existing knowledge and on related subjects. IDRC would find it useful to have a mechanism that could systematically examine institutional development problems, the proper mix and balance of research support, and the appropriate methods of funding.

Mr. Mathieson reported that in the aftermath of the Bucharest Conference the ODM was undertaking a comprehensive review of its policies and programmes of development assistance in the population field. This might throw light on the questions which should have priority treatment for illumination through further research. As to follow-up, Mr. Mathieson urged collaboration and discussions conducted among professionals, focused on specific subjects. ODM is prepared to participate in such arrangements.

Mr. Wahren noted that one message derived from Bucharest is the need to channel more of SIDA program support through multilateral and international, non-governmental organizations. However, if requested by the countries, SIDA is fully prepared to maintain an important bilateral component in their population program.

SIDA will probably have substantial funds for research and is interested in "listening and learning" from its participation in follow-up activities.

Mr. Gille stated that UNFPA's views are adequately summarized in the background paper prepared for the meeting.* UNFPA is reviewing the post-Bucharest situation, but Mr. Gille expressed confidence that UNFPA will remain interested in encouraging social science research and capacity as well as in training. Most of UNFPA efforts will be concentrated in country programs. It may also support regional arrangements to better serve country-level research. Mr. Gille welcomed the idea of a follow-up mechanism to give continuous attention to social science research questions. UNFPA wishes to discuss with other donors projects to which it alone cannot provide adequate support.

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*See pp. 267-272.

Mr. Demeny said the Population Council is active in fostering social science research outside the Council, either directly through research grants or indirectly through institutional development and graduate fellowships. He elaborated briefly on the Council's program in these matters making the point that its effectiveness is based not only on the size of its grants but equally on the professional services with which grants are combined, particularly in the institutional development field. Mr. Demeny expressed the hope that the Council will have sufficient funds from the donor community to continue to be active in similar endeavors. Mr. Demeny went on to stress, however, that the Council's primary strength and potential are in its in-house capacity to carry out policy-oriented research, disseminate research results, and render professional services leading to the formulation of better population policies in the developing world. There is a crying need in this field for an organization that has adequate professional-scientific resources to perform the roles of independent analyst, monitor, and critic vis-à-vis expanding international and national activities and that can carry out policy-oriented research to chart new directions. The Council has always been active in such a role--not adequately performed either by the donors/action agencies or by university research organizations, and its future may exclusively reside in those functions. The Council would be responsive to requests from the donor group that fall within this area of interest. Mr. Demeny expressed hope that if a consultative group were formed it would deal imaginatively with the tasks ahead, more so than was possible at this meeting. As an illustration of the kind of proposals that should have been discussed but were not, he singled out the one contained in the Muscat paper* and suggested that the consultative group could give early attention to that proposal.

Mr. Bell noted a general consensus that social science research in population and development is an important subject of continuing concern, and that there is a need to have technically qualified people from interested agencies meet periodically to monitor the field and advise their own agencies. He asked that Mr. Harkavy gather names of interested participants and set a date for the first meeting.

Mr. Chenery seconded Mr. Bell's proposal. He suggested that the advisability of establishing the informal group on a more permanent basis would be determined as it gets on with its work.

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*See pp. 313-324.

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